8ºConstruBusiness

CONGRESSO BRASILEIRO DA CONSTRUÇÃO

"A Construção do Crescimento Sustentável"

FIESP CIESP

Departamento da Indústria da Construção
DECONCIC/FIESP

8ºConstruBusiness

BRAZILIAN CONSTRUCTION CONGRESS

"The Construction of Sustainable Growth"

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Department of Industry and Construction
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The Construction of Development

The construction sector's relevance is unquestionable for its efficiency in multiplying investments, intensifying labor, generating and distributing income. Its significance stands out through its outstanding position among the main social-economic indicators and its constant recognition by specialists and opinion formers. The sector's importance in the Brazilian Economy has become more than evident after its 2009 performance, when it emerged as one of the pillars of recovery in the post economic crisis and sustainable growth the nation has long yearned for.

The great performance of the construction industry in recent years has contributed immensely to the consolidation of the Brazilian economy and rise in the domestic market, because the country is not import-sensitive. Brazil buys its raw material and inputs locally, converting them into goods with highly aggregated value for the Country's public and private assets. In so doing, it stimulates level of national activity, promoting a great influence on all the regions. The sector is also aware of its great responsibility in facing the challenges of the contemporary world, where sustainable development is the order of the day. Construction improvements are consistent with engineering and architecture processes that are environmentally friendly, water and energy saving and prioritize the safety and well-being of mankind.

As it always does when dealing with all the segments and macro economic themes that it represents, Fiesp has diligently dedicated itself to sponsoring studies and propositions that lead towards efficient construction solutions. In doing so, expressive results were attained with the creation of our Department of Industry and Construction (Deconcic), which is a forum composed of associations represented in all the construction production chain. This forum operates anchored in our beliefs that a Country can only progress when there is dialog, synergy, cooperation, transparency, shared proposals and a great will to work.

In this context and based on these assumptions, the 8th Construbusiness (Brazilian Construction Congress) was carried out, with *Sustainable Growth* as its main theme. Discussions and solution analysis are crucial, for we cannot allow that persistent bottlenecks, especially in infrastructures, stop us from taking full advantage of the immense opportunities that are now available to Brazil, particularly the 2014 World Cup and the 2016 Olympics in Rio de Janeiro.

It is also indispensable to recognize the value of human capital, the companies' most important asset. Convinced education is the key driver of successful nations, we continue working towards investments for capacitating members of the construction work force. An important player in this field is the Senai-SP, which performs serious, proactive and competent work through quality and productivity improvement programs and courses for managers, technicians and workers, continuously updated with new technologies and processes.

"Sustainable Growth Construction", more than a play of words, faithfully portrays the anxieties of our industrial park. The sector will continue doing its best and fulfilling its role for transforming Brazil into a prosperous and developed country, desired and deserved by all.

Paulo Skaf
President - Federation of Industries of the State of São Paulo - Fiesp

An agenda for the sustainable growth

Within diagnosis and proposals' scope presented in previous editions and taken on by the Government, such as PAC programs and, more recently, My House, My Life, the 8th Construbusiness 2009, which now will take place annually as the Brazilian Construction Congress, is open for discussion with the entire population.

The diagnosis developed and supported by over a hundred associations that constitute the construction productive chain, which are united under the Department of Industry and Construction (Deconcic) – of Fiesp, were broadly discussed with governmental agents, which propose public policies enhancement, expressed in this Positive Agenda.

This year, having **The Construction of Sustainable Growth** as central theme, we reconfirm the sector's importance, which represents 11.9% of the GDP and has an intense social multiplier effect as job and economy generator by being a growth inducer. We also present surveys on existing bottlenecks, updated through post crisis investment retrieval, suggesting templates within the sustainability concept, a process that is irreversible and global for the sustainable construction, also from the economic, social and cultural point of view.

The sector has already shown itself as proactive in facing challenges, after overcoming almost 20 years of instability and stagnation and of having contributed in an effective way for Brazil to conquer the recognition of having faced and overcome the international crisis.

With the strength and alliance of the construction productive chain, we show, in this study, new enhancement propositions for the necessary debates, creating an incentive and safety environment for National as well as International investments in the sector.

Therefore, the main advices of this Construbusiness cover current themes of utmost relevance, dealt with as immediate challenges and outstanding issues, such as the 2014 World Cup and 2016 Olympic Games, Urban Infrastructure, Technologic Innovation, Project Enhancement, Housing and Infrastructure Funding, Legal Security, and also presents a Private and Public Institutional Efficiency Program, based on the sector's sustainable growth and important tools for undoing bottlenecks to promote the Country's development.

Believe in the virtuous cycle that we are experiencing now and come with us to sign the Open Letter of the Construction Industry, addressed to the present and futures governors, as being our effective collaboration for the support of sustainable growth, the sector and Brazil.

José Carlos de Oliveira Lima
Vice-President - Fiesp
Director - Department of Industry and Construction - Deconcic

Sustainable Growth in Housing and Infrastructure Private and Public Institutional Efficiency Program

It with great pleasure that we present the eighth edition of *Construbusiness* that is now in its twelfth year. The event stands out for its representativeness and the relevance of its subjects, being an important source of information for the Civil Construction chain and a fertile ground for the proposition of public policy actions directed to promote national development.

As of this year, we are inaugurating annual editions, so that the subjects elected by Construbusiness become the structural basis of the **Brazilian Construction Congress**, which is also beginning this year.

With this initiative, we shall coordinate a broad debate on the present stage of Brazil's development in the housing and infrastructure sectors, diagnose the successes and eventual bottlenecks, then, point out and suggest fundamental actions to insure sustainable growth. The Brazilian Construction Congress will have the opportunity to bring together renowned personalities and specialists to, jointly, validate and complete, whenever possible, the diagnosis and propositions that constitute the Construbusiness, which are temporarily consolidated in this booklet.

Thus, this document synthesizes a well succeeded effort of ideas, business visions and public policy suggestions aiming at perfecting the Construction chain and the country's development, which is the result of a vast research and, above all, of the direct contribution of several agents represented in the DECONCIC – Department of Industry and Construction – of FIESP, as a way of helping to set up an agenda for the public policies for 2010.

PAC, the 2014 World Cup, the 2016 Olympic Games – are all examples of relevant challenges that should be converted into opportunities to accelerate investments that society has long yearned for, mainly in infrastructure. For that, planning, legal security and efficiency, asides from adequate financing instruments and resources, are fundamental for achieving results within the necessary deadlines.

In this context, *Construbusiness* identifies, once again, priorities for national development. Constituting 11.9% of the Brazilian GDP, this Chain is highly capacitated to stimulate internal demand and create working positions, which makes it the economic and social development engine. It generates the multiplication of investments and a strong positive income due to its intense workforce capacities and the promotion of a greater productive capacity (forming gross capital).

This relevance recently became evident because of the Construction Chain's crucial role in recuperating the economic activity after the international crisis. We, from LCA, are honored to be a part of this history – of *Construbusiness* - that has accelerated the construction of our recent history. This year, with the Brazilian Construction Congress, the event has become greater and more important, like the Construbusiness. We are pleased to accept the challenge, for we know that by supporting the construction chain we are constructing sustainable growth.

LCA Consultores
[Fernando Camargo, partner-director
Cláudia Viegas, coordenator.]

CONSTRUBUSINESS 2009: The Construction of Sustainable Growth

As covered in previous editions, housing and infrastructure are still the focus of *Construbusiness* 2009, since housing deficit is still a relevant problem in big cities and infrastructure is the base for sustainable growth.

This edition begins by showing a synthetic retrospective of the main proposals of *Construbusiness*' previous editions, which resulted into policy actions and contributed to the Brazilian construction industry chain. As we will see, many of the Federal Government's recently announced policies are in line with the suggestions of previous *Construbusiness*, which largely contributed to the continuous development of Brazil's infrastructure.

It is evident that since September 2008, the international crisis has scaled down the intense growth the world had lived since 2004, a lot was done and is continuously being done to minimize its results, and there are already signs of crisis reversion and growth recovery. Thus, the main suggestions in this edition are for maintaining and giving continuity to the programs underway - namely the *"My House, My Life"* and the "Growth Acceleration Program – PAC". We have to find ways for these programs to have continuous actions and conditions – such as financial and human resources and planned actions – in order to continue operating in the long term.

Therefore, the search for efficiency has been highlighted in this edition, which is titled **Program of Public and Private Institutional Efficiency**. With a greater availability of public resources for infrastructure and housing policies, we can now move on to another stage of analysis: which bottlenecks have to be overcome in order to achieve the intended results of these policies within designated deadlines? This edition will go beyond the evaluation, by setting forth a set of proposals to improve processes and put into practice the **Program of Public and Private Institutional Efficiency**.

The debate on sustainable development based on construction, inevitably goes through the efficiency of the processes, which covers issues like procedures, agility in analyzing processes and approval of projects and works by the municipal departments and contracting institutions, infrastructure work control supervision. We point out the need for the urgent planning and implementation of undertakings related to the 2014 World Cup and 2016 Olympic Games, which offer an important opportunity to overcome the housing as well as the infrastructure bottlenecks, fulfilling the yearnings of the Brazilian society.

This *Construbusiness* 8th edition is composed of the following items, presented in sequence:

1. The results of the public policies originated in the previous editions of the *Construbusiness*
2. The relevance of Construbusiness: recent evolution of the main economic indicators
3. Sustainable growth challenges: Priority Actions
4. Complementary Agenda: Points of Attention in Housing and Infrastructure

1. Results of the public policies originated in previous Construbusiness editions

Construbusiness' relevance and economic expression have become clearer to society and to the Government for some years, whether it be for its participation in the GDP (around 12%), for the capacity of generating jobs and multiplying income results on the demand, or for the capacity to amplify the GDP's growth potential through infrastructure expansion, or, even for its strong social appeal in reference to popular housing. We can therefore affirm that throughout the years construction has become the priority sector for the development agenda and social inclusion of the present government since its first term in office.

Thus, Construbusiness previous editions have acquired prominence and importance in the agenda of public policies for having scheduled a series of housing and infrastructure stimulus actions throughout these years.

Fundamental issues – such as technical conformity and material standardization, improvement of financing conditions, legal safety, tax incidence, the definition of parameters for public subsidy to HIS - Social Interest Housing and appropriate financing conditions for individuals in the intermediate income tax range, etc. – were studied and converted into public policy actions to allow for the sector's development.

We have listed below some of the propositions announced in previous editions, which have been implemented in one way or the other, but **require realignment for the present scenery**:

Innovation of Products and Processes

- Acceptance of components, processes and projects of innovation management (*Construbusiness* 2001)
- Improving existing institutional structure for the approval of innovating products: immediate implementation of the SINAT (National System of Technical Approval) (*Construbusiness* 2003)
- More intense use of IT tools developed for the sector, such as project SILO[1] and the BIM (Building Information Modeling[2]) (*Construbusiness* 2008)

Products and services in accordance with technical legislation

- Extending the use of products and services in accordance to the technical legislations: implementation of mechanisms that insure the purchase, in qualified networks, of material only within technical conformity, according to PSQs – Programs of Sector Quality of PBQP-H – Brazilian Program of Housing Quality and Productivity and, according to the Private Sector Fund; equipping the agents (MP, Procons, etc.), which inhibit and control the non conformity actions, putting into effect article 39 of the Consumer's Defense Code; giving support to the initiatives of qualification of companies that intend to participate in the PSQs of the PBQP-H (*Construbusiness* 2003)

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[1] *The SILO system integrates data of the municipalities on National basis, facilitating the licensing stage of the work and relieving one of the main bottlenecks of the building processes.*
[2] *Defines a National standard and its respective construction component classification, with positive impacts on quality, managing and work costs.*

Tax Incidence

- Reduction of Notary costs (Construbusiness 2001)
- Extending the cumulatively basis of PIS/Cofins to the Construction Industry, creating a definite solution for that incidence (Construbusiness 2008)
- Amplification of the range of the RET – Special Basis for Taxing – RET for HIS, by approving a zero rate (Construbusiness 2008)

Housing Financing

- FGTS: Greater resources for housing production via private initiative (*Construbusiness* 1997)
- Savings and financing incentives (*Construbusiness* 2005)
- SBPE: 25% to 10% compulsory deposit reduction (*Construbusiness* 1997)
- Stimulus for creating Real Estate Funds, Debentures, Mortgages and Securitization and development of the secondary market (*Construbusiness* 1997)
- Creation of a Guarantee Fund for HIS[3] in order to allow the banking system to finance segments not covered by any ends of the System (subsidy and SFH – Housing Finance System) (*Construbusiness* 2008)
- Creation of incentives for the financed families to comply with their contract. Assure resources at lower rates: reduce the "operation rate" of the resource manager of the Guarantee Fund, reducing the final rate (*Construbusiness* 2008)

Legal Insurance

- Norms that inhibit lawsuits in loss of the housing credit in reference to: (i) compound interest approval with monthly capitalization; and (ii) use of extrajudicial procedures according to Executive-Law 70/66 for the implementation of mortgage guarantee (*Construbusiness* 2003)

Housing

- Actions that improve the regulatory Mark for construction licensing, in order to reduce licensing time (*Construbusiness* 2008)
- Broadening the budget resources to ensure social "funding"; Broadening the budget resource flow (OGU) in the PPA – (pluri-annual budget program), for housing program purposes; broaden sources: quota of the Poverty Combat Fund, quota of state and municipality sources (*Construbusiness* 2003)
- Subsidy program for the acceleration of HIS foreseen in the PAC and broadening for longer terms (*Construbusiness* 2008)
- Strengthening of the State Secretariat for Urban Development - SEDU (*Construbusiness* 1999)

Infrastructure

- Developing a procedure to accelerate the reinsertion of idle urban regions into the market - in general central areas, presently pending of agrarian or fiscal regulation - with the creation of specific purpose funds, in partnership with private initiative (*Construbusiness* 2008)
- Incentive to increase investments in airports: airport concessions (*Construbusiness* 2008)
- Immediate reactivation of the investments in sanitation (*Construbusiness* 2005)
- Forming and implementing a finance and managerial recovery program of the sanitation companies (*Construbusiness* 2003)

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[3] That Fund would be to finance families with monthly incomes between R$ 600 and R$ 1.600, which do not have access to the standard housing credit, being considered of high credit risk – pointing out that Brazil's credit culture is not yet mature enough to give credit to this income range.

Workers qualification for the construction sector

- Technical and worker level capacitation of hand labor: focusing on subcontractors and qualified workers, the program aims at productivity and quality improvement through technical and managerial capacitation, qualification and certification in new Technologies and for the improvement of job quality in construction (*Construbusiness* 2008)
- Capacitating higher level technical and hand labor: create a model that maintains professionals updated and gives them incentive to participate in perfecting programs, with course centers throughout the entire National territory (*Construbusiness* 2008)

Other policies that have already been mentioned in passed editions need to be implemented and are still part of the agenda of the construction sector. Among which:

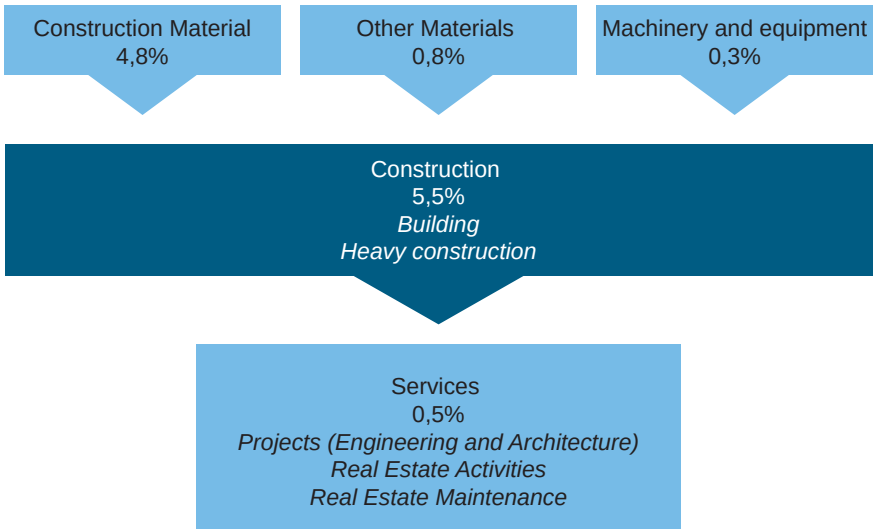
- Rationalizing the Construction Industry Productive Chain tax structure to make it compatible with the subsystems logic (*Construbusiness* 2003)
- Specialization of the basic workforce linked to the formal segment (*Construbusiness* 2003)
- Consolidation of the private public partnership with the consolidation of the regulatory environment and the creation of finance and fiscal instruments that give credibility to public guarantees (*Construbusiness* 2003)
- Clear definition of the responsibilities and competences in the environmental licensing process between federal, state and municipal departments (PEC regulating Section 23 of the Constitution) (*Construbusiness* 2003)
- Reduction of the tax burden on urban building renting businesses, reducing the rate of the IRPF (*Construbusiness* 2008)
- Establish the Principle of Concentrating all Encumbrances in the real estate register, which becomes a one and only base for real estate registration. (*Construbusiness* 2008)

2. The relevance of the Construction Industry sector: recent evolution of the main economic indicators

The Construction Industry sector is composed of the segments of construction, construction Material, Services, Machinery and equipment and other materials. The sector's role has been relevant in other activities, with a multiplifying effect on the economic and social development of the country.

Construbusiness' 2008 participation in the Brazilian GDP was significant, equivalent to 11.9%, against 11.3% in 2007.

Construbusiness on Brazilian GDP



Note: the numbers of the Construbusiness Chain participation in the GDP, despite their magnitude, might have been underestimated by LCA; since there are induced results on other activities were not taken into account in the computation.
Source: National Accounts/IBGE, 2006. LCA estimates involve the following methodology: (a) addition of the production and intermediary consumption of the Civil Construction to find the total movement in resources (National Accounts 2006); (b) technical coefficient calculation, which is the ratio between production and intermediary consumption; (c) production update up to 2008, based on the Construction's GDP growth during the period; (d) intermediary consumption estimate for 2008 using the technical coefficient and the production estimate; (e) sum of the estimated production and intermediary consumption for 2008; (f) calculation of the ratio between the production sum and the intermediary consumption and the National GDP. Prepared by: LCA

The construction sector's good performance has been observed in the last years, and stands out as one the economy sectors that has most grown in2008. Its role is fundamental in broadening the supply and generating work. It is one of the key-sectors in promoting anti cyclic policies during moments of international crisis such as the one that struck Brazil, especially in the last quarter of 2008 and beginning of 2009. Different from the United States, where the real estate sector originated the crisis, in Brazil, the construction sector smoothed the crisis results, allowing the country to be one of the less affected countries and, additionally, one of the first ones to start recovering.

Main ConstruBusiness Indicators

Average grouth rate	2004-2008 (%)	Values in 2008
PIB Total (1)	4.77	R$ 2.8 trillions
Civil Construction GDP (1)	5.21	R$ 125 billions
Real Estate Financing (FGTS* + SBPE) ** (2)	99.64	R$ 41 billions
BNDES disbursements for infraestructure*** (3)	22.96	R$ 41 billions
Formal and Informal Jobs (4)	1.56	93,7 millions
Formal and Informal Jobs in the Civil Construction Chain (4)	3,40	7,8 million employed people

* FGTS resources include subsidies
** period between 2005 and 2008
*** current price values for June 2009
Note: The quantity of people employed in the Construbusiness Chain, despite their magnitude, might be have been underestimated by LCA, since there are induced results on other activities that were not taken into account in the computation.
Fonte: (1) National Accounts/IBGE; (2) FGTS: Caixa Econômica Federal (Federal Savings); SBPE: Associação Brasileira das Entidades de Crédito Imobiliário e poupança (Brazilian Association of Real Estate Credit and savings Entities)(ABECIP), Banco Central (Central Bank); (3) BNDES; (4) Estimates by LCA. Prepared by: LCA.

- The Civil Construction GDP (index) showed an extraordinary spike in 2008, 8% above 2007; it was one of the sectors that most contributed to the National GDP growth, reaching R$125 billions.
- Real Estate financing also follows a virtuous course: the resources directed to housing (FGTS and SBPE) went from over R$ 10 billion in 2005 to R$ 41 billion in 2008.
- The BNDES has performed a fundamental role in making credit available for the infrastructure. In 2008, out of the total disbursements (R$ 97.4 billion), 42% were for infrastructure. 28% higher than the amount of the previous year.
- In December 2009, the Construction Chain should be responsible for the employment[4] of 7.7 million workers, formal and informal[5], compared to, approximately, 7.8 million workers in 2008. This quantity decreased since September 2008, due to the impact of the crisis on that sector.

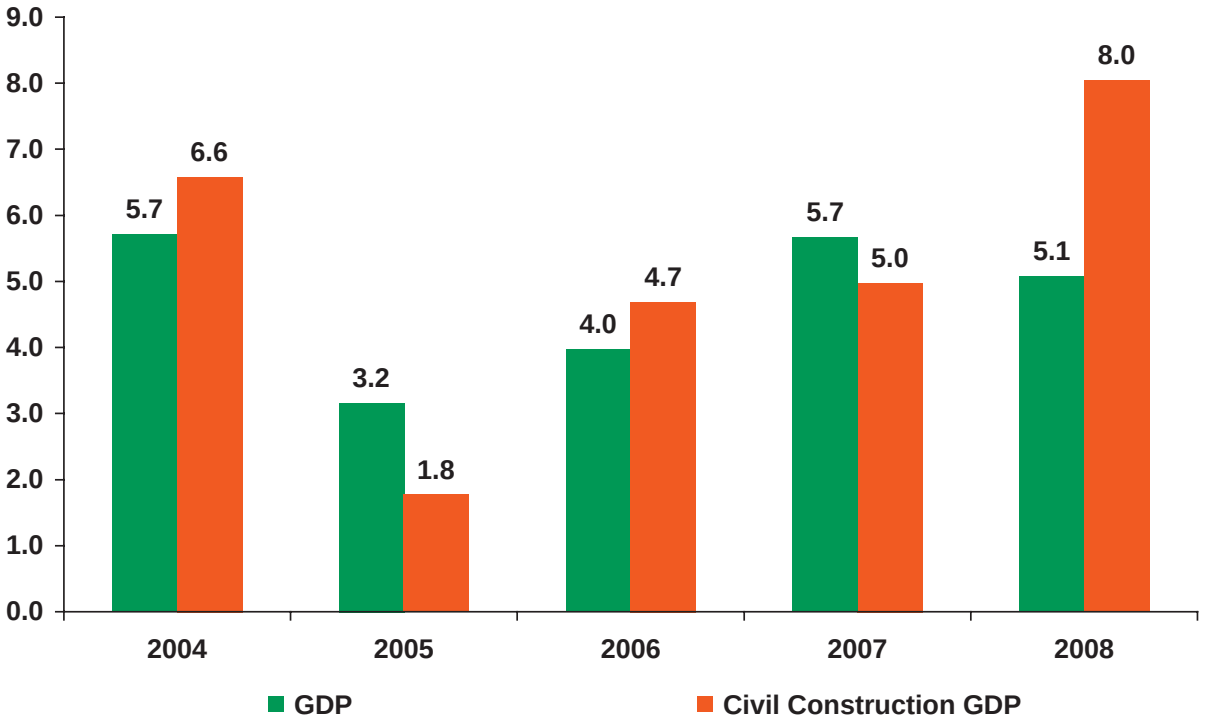
2.1. Evolution of the main indicators for civil construction and infrastructure

Civil Construction has grown steadily from 2004 to 2008, reaching an average rate of over 5% per year – half a point percentage yearly above the total GDP's growth. The sector performed extraordinarily mainly in 2008, growing 8% in comparison to 2007, reaching R$ 125 billion and confirming the favorable expectation of growth recovery.

[4] Source: LCA projection based on RAIS and Caged of the MInistry of Labor, and of PNAD and PME data, both from IBGE
[5] Informal worker (without working papers, free lance, employers and other) differ from those that have formal ties ("celetists, military people, and state staff). As the free lance represent more than 60% of that group and is basically formed by informal personnel, there is no significant information loss in generalizing the title "informal workers".

Evolution of Brazilian GDP's and Civil Construction growth rate evolution (in yearly %)

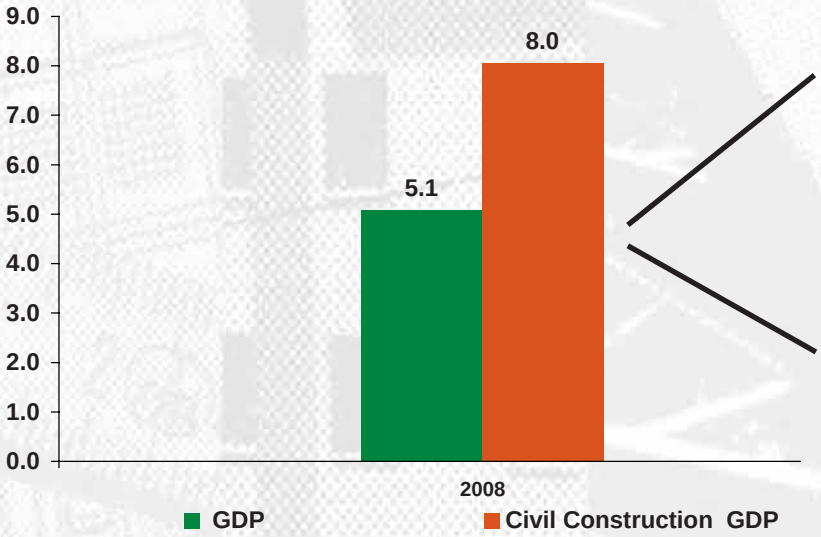
Source: IBGE. Prepared by: LCA



However, disturbances in global trust and credit contraction suddenly restrained Brazilian GSP's growth in the 4th quarter of 2008, which posted a value of R$ 747 billion (the rate remained around 2% in reference to the same quarter of the previous year). Disturbances in global trust lasted until the 1st quarter of 2009. This negative impact was even greater, closing the 2nd quarter with a negative rate variance (-9.5%). In nominal terms, the GDP of the observed sector was R$ 60.1 billion for the 2nd quarter of 2009.

Growth rate of Brazilian GDP and of the Civil Construction in 2008 (in %)

Source: IBGE. Prepared by: LCA



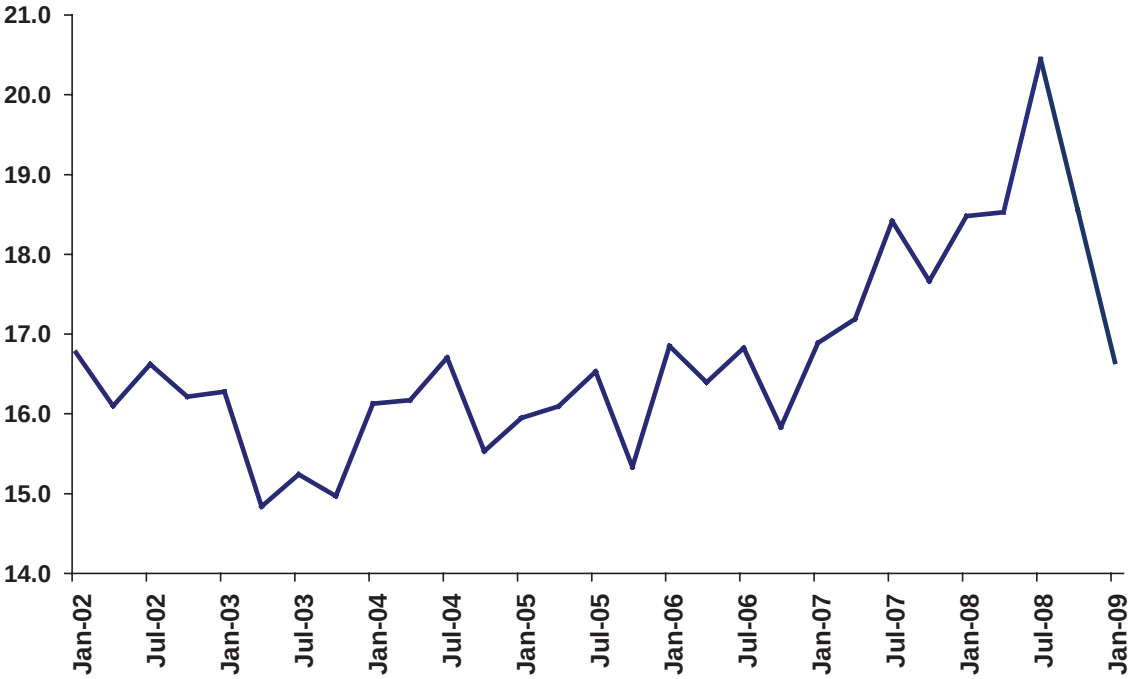
Growth rate of total GDP and of Civil Construction GDP in 2008 and 2009 (variation with reference to the same period of the previous year, in %)

Source: IBGE. Prepared by: LCA

The good performance of economy in the last years allowed a spice in the Fixed Capital Gross Formation (FBCF), which attained over 20% of the GDP in mid 2008. However, in the second quarter of 2009, the FBCF, which had been decreasing since the crisis, slid down to 15.7%, the same level of the end of 2005. However, the scenario has become favorable since the second quarter of 2009, and can bring improvements in the Construction sector; wich has strong links with fixed investments.

Evolution of the Fixed Capital Gross Formation - FBCF (in GDP % - moving average of four quarters)

Source: IBGE. Prepared by: LCA



Signs of step up in the FBCF and, consequently, in the GDP, come from the general expectation of growth recovery in the 2nd quarter of 2009. The Trust Index[6] that considers the entrepreneurs' evaluation on present conditions and the expectations for the industrial activity is a good real economy marker because it indicates the intention of continuing to investment in industry, contributing to the maintenance of economic growth.

As a reflex of the low level of confidence provoked by the crisis, the indicator went from 117.4 in the 3rd quarter of 2008 to 76.4 in the 1st quarter of 2009. However, the two following quarters showed a recovery and suggest that growth will pick up in following months.

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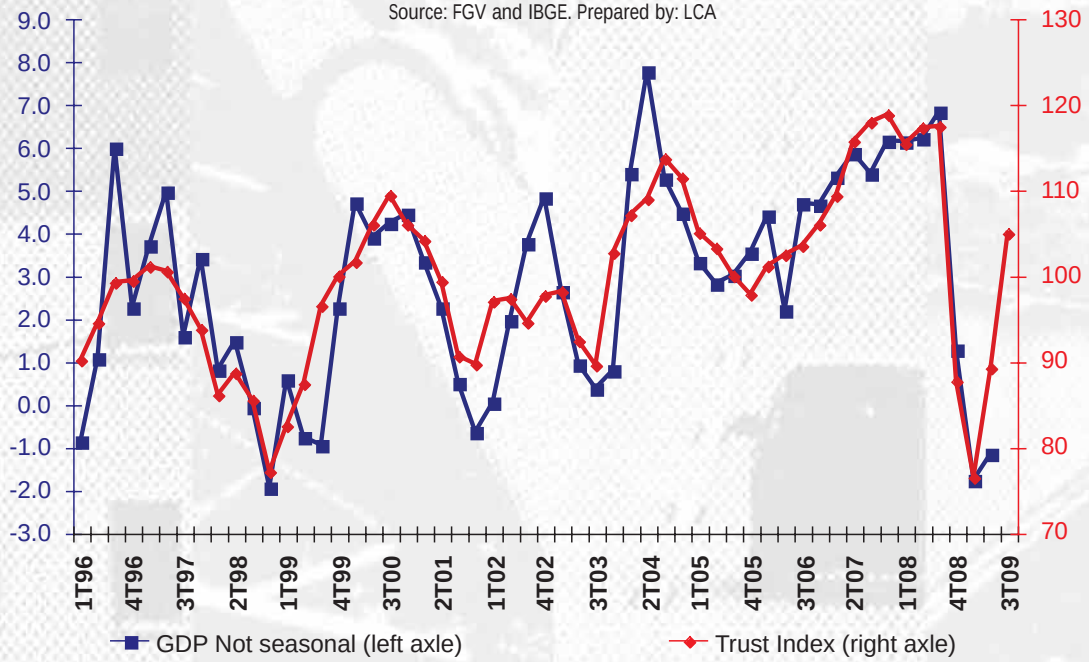
[6] *The correlation between GDP and the industry's trust index is of 85%.*

GDP versus Trust Index in the Industry (GDP in %: inter annual variation of one quarter with the same periods of the previous year)

Source: FGV and IBGE. Prepared by: LCA



Based on data from RAIS, PNAD and PME, LCA estimates show that people employed in the Construbusiness chain until September 2009 represented 7.6 million, approximately the quantity registered in 2007. Proportionally, retraction in civil construction jobs in comparison to the total quantity of jobs occupied wasn't so significant: in September 2008, according to LCA[7] estimates, the jobs in the Construction chain amounted to 8.7% of the National total, or approximately 8.2 million workers, while in September 2009 LCA's projection pointed to a prevision of 8.1%. This small loss of participation of the Construction chain is related to the service sector of the economy in general, which shows a strong anti cyclic component. However, the good performance of the Construction industry in the last months has strengthened the formal sector. In September 2008, formal workers represented 29% of *Construbusiness*[8], while LCA's projections estimate that it will reach 30.6% a year later.

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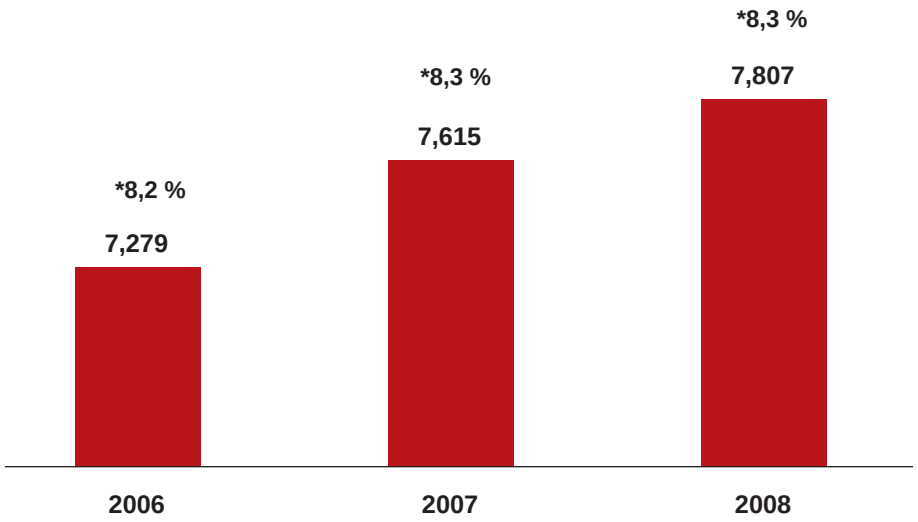
[7] *Based on PNAD/IBGE, PME/IBGE, CAGED/MTE, RAIS/MTE, PIMES/IBGE and PED/SEADE-DIEESE.*
[8] *Source: LCA evaluation.*

Total of people employed in the civil construction chain (Thousand positions) and participation in the total amount of employees in December

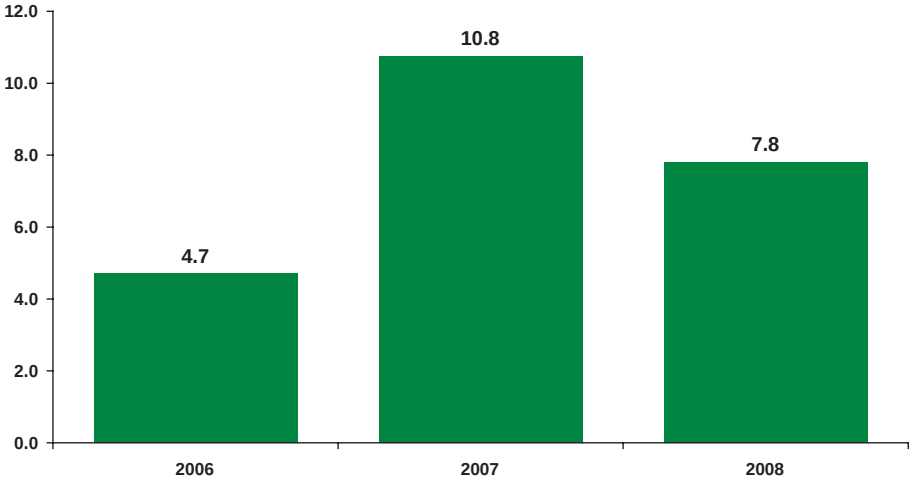
* Participation of the Construbusiness Chain in the total amount of people employed
Note: The amount of people employed in the Construbusiness Chain, despite its magnitude, might have been underestimated by LCA, since there are induced results on other activities that were not taken into account in the computation.
Source: National Accounts. Elaboration and Projection b: LCA based on RAIS and on the Caged of the Ministry of Labor, and of the PNAD and PME data, both from IBGE.



Moreover, the construction sector has a unique importance on the demand of the departmental activities of the related industries. The end use of the construction industry products increased rapidly between 2006 and 2007, reaching a 10.8 rate during that time. However, in 2008, due to the lack of trust provoked by the crisis, growth observed on the amount of sales was less expressive, representing a 7.8% variation, when compared to 2007.

Variation of the amount of construction material sold – enlarged retail (in %)

Source: PMC – Business Monthly Research/IBGE. Prepared by: LCA

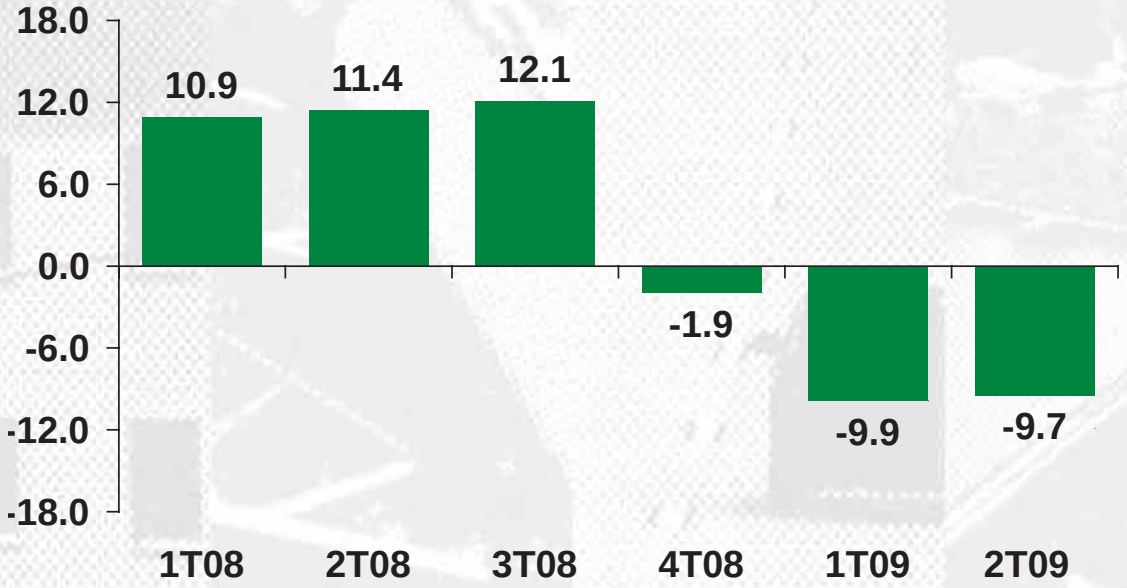


One can noticed that up to June 2009 the accrued variation of the amount of construction material sales is 9.8%[9] negative, compared to the same period of the previous year. The drop in sales, affected by the crisis, was already felt in the 4th quarter of 2008, with greater reflection in 2009.

[9] *Variation average (in reference to the same quarter of the previous year) of the two first quarters.*

Construction material sales amount in 2009 – retail increased (in % in reference to the same period of the previous year)

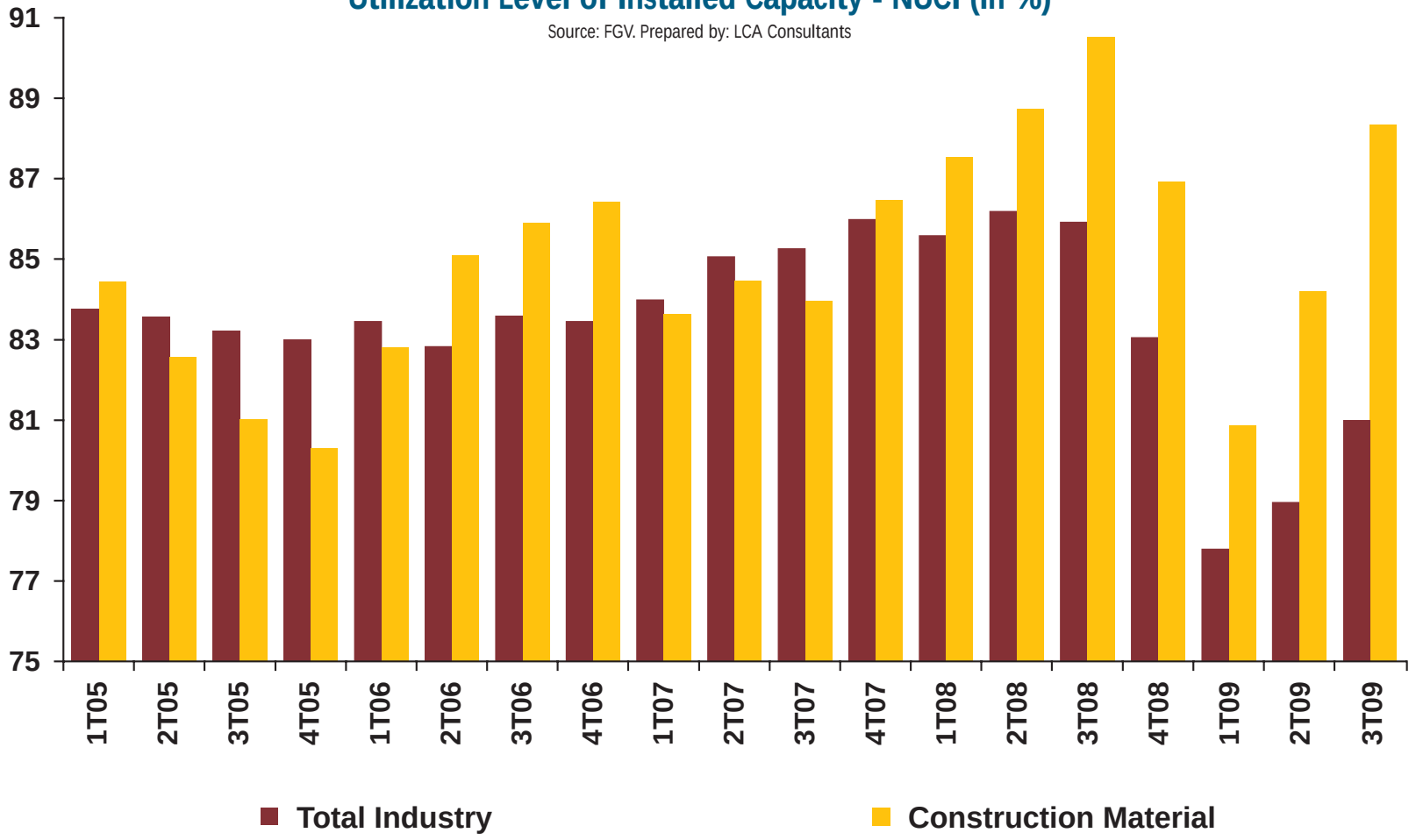
Source: PMC – Business Monthly Research/IBGE. Prepared by: LCA



From the first quarter of 2008 onwards there was a drop in the level in the use of the material and construction industry installed capacity. However, one can see that the registered drop does not follow the magnitude of the retraction capacity of the total industry employment. Lack in foreign demand activity and the great accrual of stocks has prevented a faster industry recovery. But the shy retraction of the domestic demand has smoothened the Construction Material NUCI drop.

Utilization Level of Installed Capacity - NUCI (in %)

Source: FGV. Prepared by: LCA Consultants

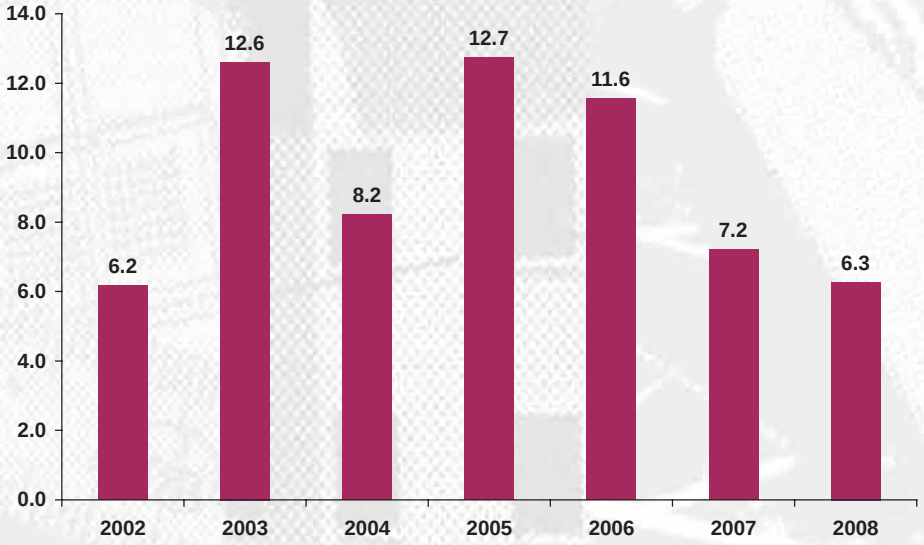


Despite the predicted recovery, total industrial capacity use should not come back to the levels of 2007 and 2008.

With the unfolding of the international crisis some adjusting actions were taken to stop its effects, among which a cycle where basic interest rates were lowered. In 2008, basic interest rates were reduced 50% in comparison to 2005, reaching the same level as in 2002.

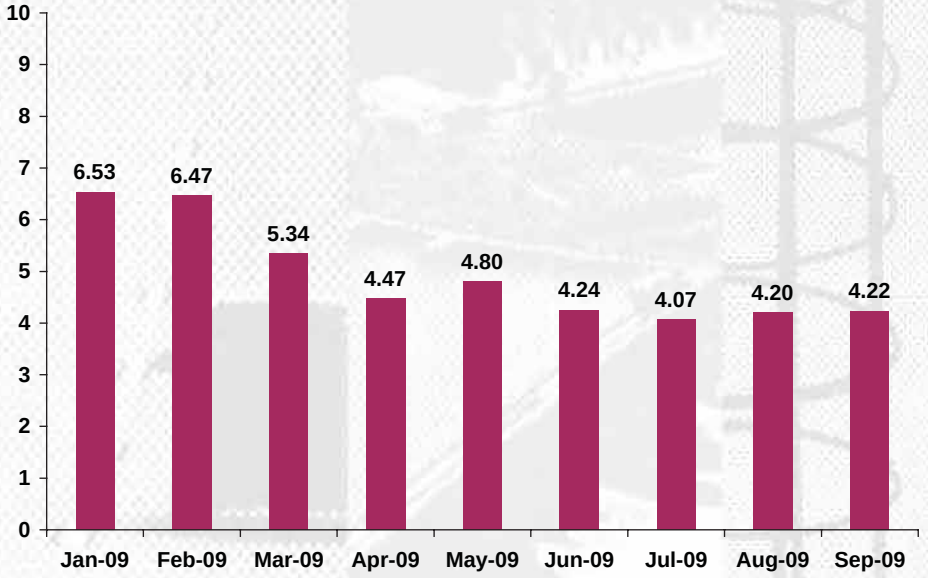
Average real basic interests (yearly %)

Source: Central Bank. Prepared by: LCA.



Monthly average real basic interests in 2009 (% per month)

Source: Central Bank. Prepared by: LCA.

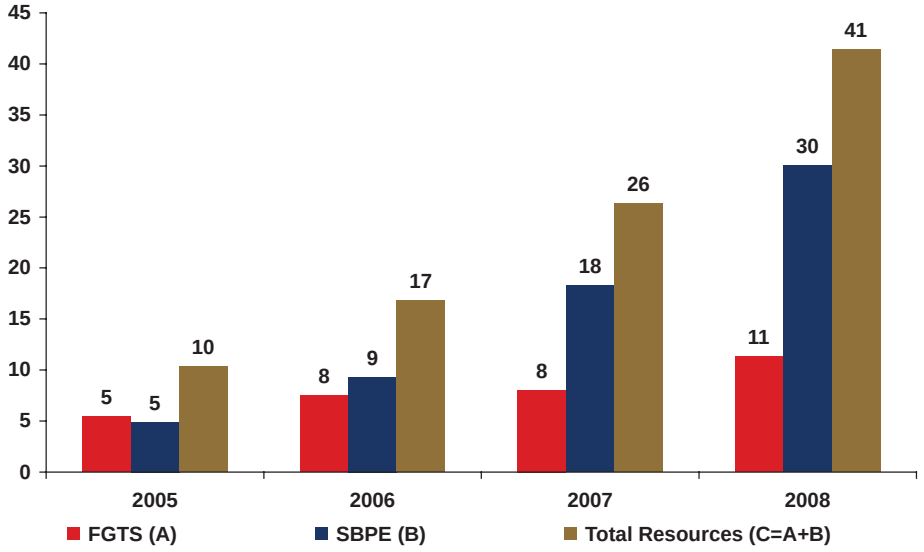


Accumulated real interests rates up to September of 2009 were 4.9%. The price environment and inflation should allow interests to remain at historically low levels in the long term. The perspective of more reduced interest rates in the following years permits to expect the return of a strong demand.

The Brazilian income recovery was quite a favorable factor these last years, which, together with regulatory actions and leveraged real estate financing, mainly in the last three years. The actual contraction in interest rates and the overcoming of the international crisis should intensify the spike in real estate financing.

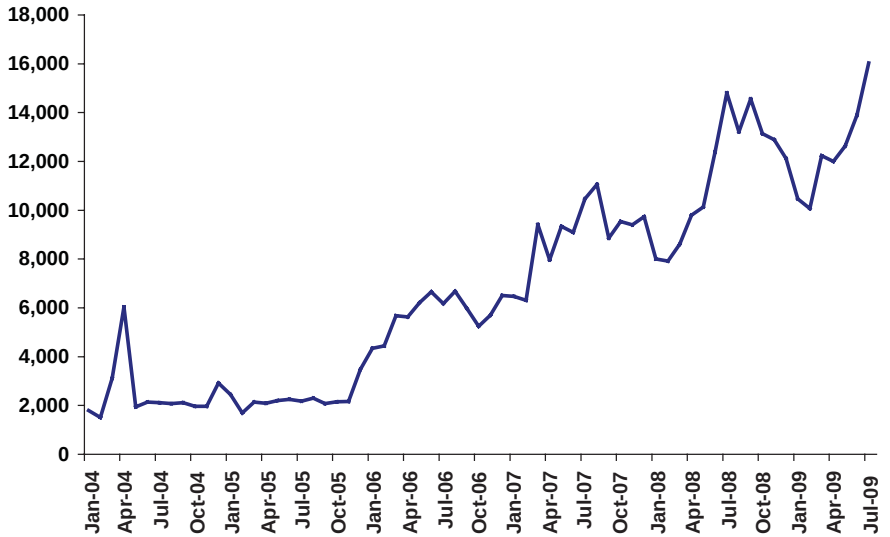
Real Estate Financing Development (in billion R$)

Note: FGTS resources include subsidies
Source: Central Bank and Caixa Econômica Federal. Prepared by: LCA



Real Estate Financings for new and used real estate purchase (In units)

Note: FGTS Excluded.
Source: Central Bank. Prepared by: LCA



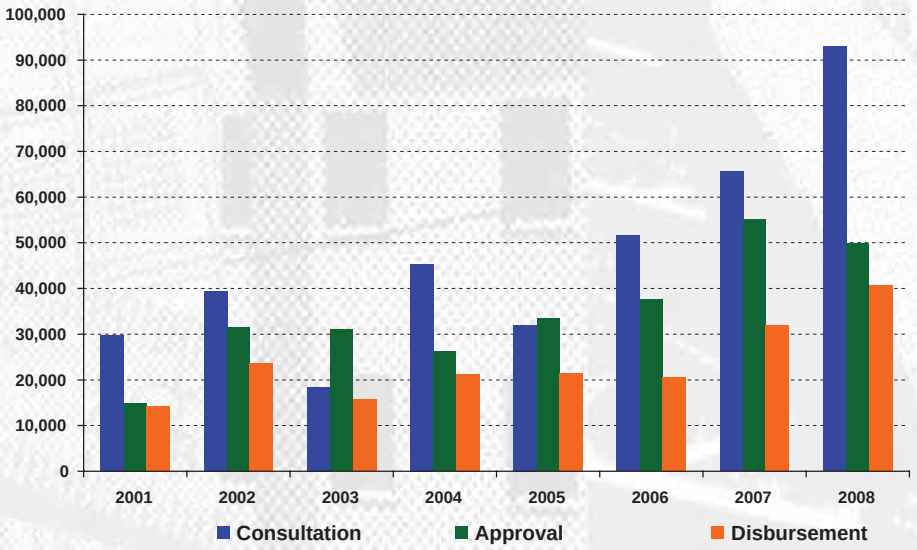
The expected improvement in real estate financings can already be seen at the beginning of 2009. In 2008, real estate financing added up to R$ 41billion against R$ 26 billion for the previous year. On the accrued between January and July 2009, SBPE housing resources registered a sum of R$ 16.3 billion, approximately 2.7% above the registered value for the same period of the previous year. On the other hand, the quantity of financed units[10] increased in about five thousand units in July 2009, in reference to January of the same year.

In reference to the infrastructure, BNDES has held a fundamental role in making credit available for undertakings. The Bank portfolio, for these purposes, practically doubled in the last years: the disbursements went from R$ 21.3 billion in 2004 to R$ 40.9 billion in 2008 and consultations also increased in 2004 from R$ 45.4 to R$ 92.6 billion in 2008.

[10] *Data does not include FGTS.*

BNDES Portfolio of financings linked to infrastructure (R$ millions – current ago/09- updating INCC)

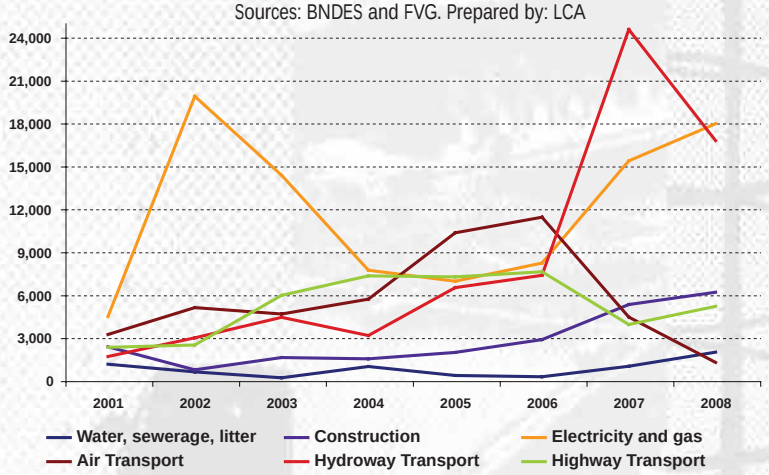
Note: The infrastructure sector includes the subsectors: Water, sewage and garbage; Construction; Electricity and gas; Air transport, Highway transport; and Hydroway transport.
Sources: BNDES and FGV. Prepared by: LCA



With a crucial role in the financing of the PAC – Growth Acceleration Plan works, BNDES released an amount of R$ 40.9 millions to the infrastructure sector in 2008 – equivalent to 42% of its total disbursements. In the accrued until August 2009, releases for the sector amounted to R$ 29.2 billion, representing a growth of 19% in reference to the same period of the previous year, but reducing the total participation to 34.8% in the period. The infrastructure sector that leads the composition of approved portfolios and disbursements from the BNDES is the highway transport sector.

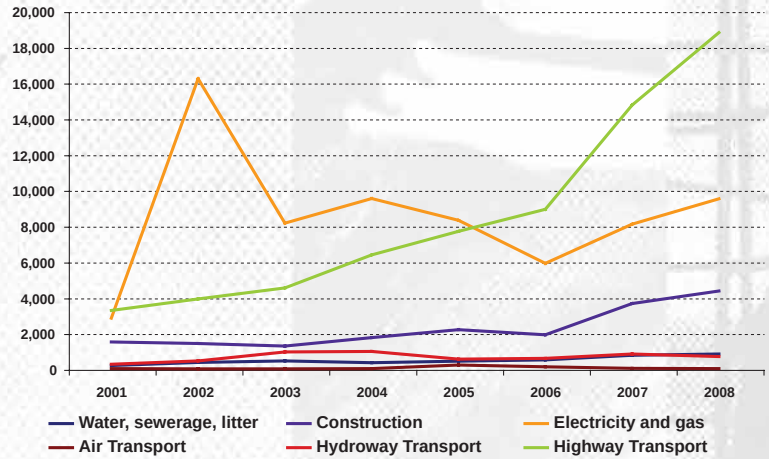
Annual approval of the BNDES system (R$ million – current values - Aug/09 - INCC update)

Sources: BNDES and FVG. Prepared by: LCA



Annual disbursement of the BNDES system (R$ millions – current values Aug/09 - INCC update)

Sources: BNDES and FGV. Prepared by: LCA.



Besides the growth in disbursements for traditional lines, the BNDES's offer openings for new infrastructure activity products have greatly contributed to the sector's performance. An example is the FGI – Guaranteed Investment Fund that allows for operations with a maximum guarantee cost of 0.15% per month. FINAME and the BNDES Card allow for the financing of machinery and equipment for the sector's activities, besides material, components and constructive systems for civil construction. Interest rates for a great number of these new lines were reduced from about 10.25% to 4.5% per year until December 2009. Eventually, BNDES Card coverage was extended to a broader range for service contracting in development and innovation, applied to the development of products and processes, allowing smaller sized companies to have easier access to credit in order to achieve greater competitiveness.

The refinancing of the Capital Goods Sector (REFIN-BK) – will allow refinancing under the same conditions as in the original contracts up to December 2009

Furthermore, BNDES, through its subprogram BNDES Construction Quality, promotes investments in the enlargement of the productive capacity of construction sector chain companies, especially of industrialized constructive systems for housing, through the subprogram BNDES Industrialized Construction.

the PEC – Special Credit Program stands out among the support products for working capital. With financeable amounts of up to R$ 200 million, the PEC is directed to companies from the building construction industry and specialized services for construction, contracted directly by the Public Administration, explicitly for the PAC – Growth Acceleration Program, for services in: electric Energy, Oil, Gas and Biodiesel, Logistic Infrastructure and Transport, as well as the Telecommunications segments.

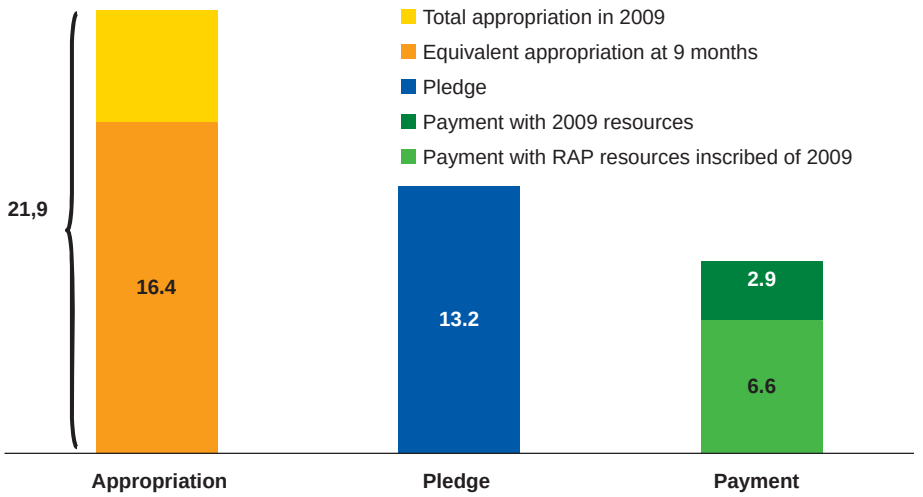
The expressive numbers are a reflex of the importance of the country's infrastructure development, together with the responsibility of BNDES in promoting the PAC.

The PAC has established a budgetary allotment of R$ 21.9 billion for 2009 with a budget commitment of R$ 13.2 billion. One can see that R$ 6.6 billions of the payments correspond to payment obligations for the previous years (RAP - Obligations to be Paied), and only R$ 2.9 million correspond to payments concerning 2009. In other words, the gap between allotments and implementations are evident. The RAPs constitute a significant part of the amount due.

One should point out that PAC works represent 40% of the entire investment made by the National Union in 2008 and attained 43.4% in the first quarter of 2009.

PAC Budgetary Implementation in 2009 – OGU (R$ billions)

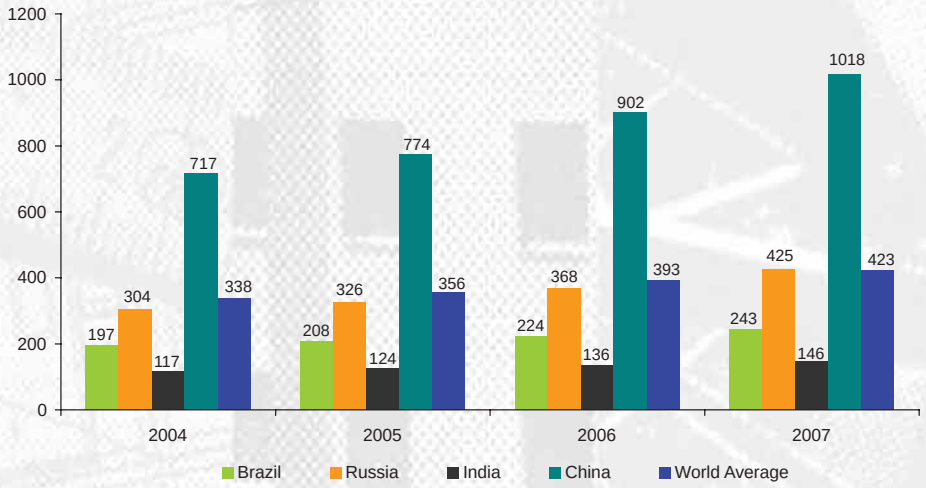
RAP: payments still due
Source: PAC (apud SOF – reference date: Sep/2009) Prepared by: LCA



A multiplying effect propeller of several economy sectors, the construction sector shows a positive correlation with the cement industry – basic input of construction activities. One can see that cement consumption increased in the past years. However, the national cement consumption level per capita presents a great gap, when compared to countries abroad such as Russia and China, which, like Brazil, do not presently have a consolidated infrastructure, and, therefore, have relevant needs that must be met.

Cement per capita consumption in selected countries (in Kg per inhabitant)

Source and projections: SNIC – National Union of the Cement Industry. Prepared by: LCA



In reference to the consumption of steel products exclusively for infrastructure activities, Brazil is in a much lower position than countries like Spain and China. Despite the favorable development for the consumption of steel products, the registered level is still low – only 26.04% growth for 1980.

Per capita consumption of steel products in selected countries (Kg per inhabitant – considering domestic sales of the most important steel companies)

	1980	1998	2002	2008 Total	2008 (in activities linked infra-structure*	1980/2008 Total Variation
Japan	610.5	555.9	562.4	597.2	338.6	-2.18%
Spain	202.1	393.3	475.7	440.5	326.4	117.96%
Germany	469.4	455.5	383.4	502.4	288.9	7.03%
United States	376.0	429.5	368.8	315.6	198.5	-16.06%
China	34.1	88.6	148.5	318.5	284.6	834.02%
México	120.2	130.4	140.5	160.2	136.9	33.28%
Brazil	100.6	89.5	94.4	126.8	79.3	26.04%

*Includes: metal products, machinery, equipment and civil construction. Excludes: electro-electronic machinery and equipment, home appliances, vehicles and other transport equipment.

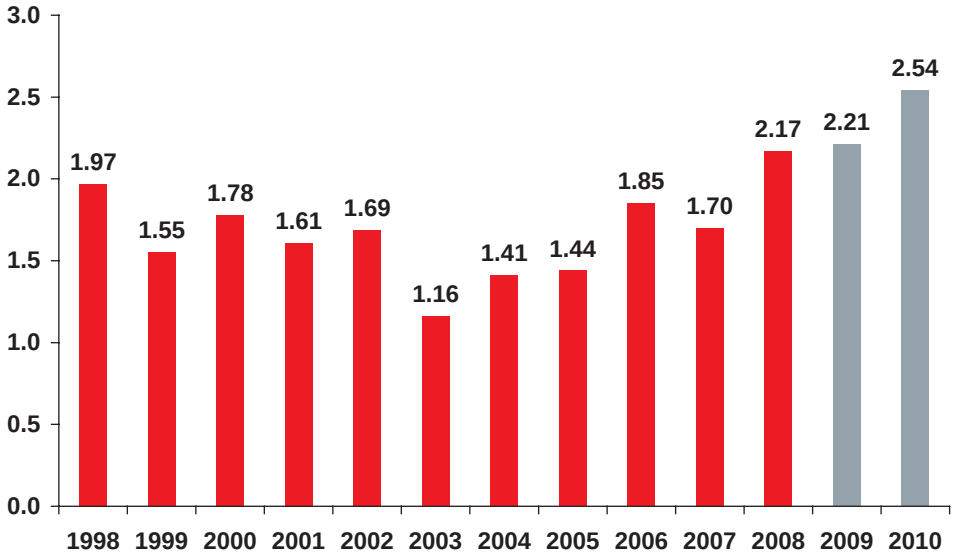
Source: Instituto Brasileiro de Siderurgia – Brazilian Steel Institute.

Asphalt sales started growing once more in 2008 after a punctual drop in 2007. That is interpreted as the result of the expansion of demand promoted by new undertakings in airports, ports, and specially, in highways where there is an expected need for positive maintenance in the coming years.

Despite the growth registered in 2008, which was above the levels of previous years, asphalt sales only increased 10% in ten years. In comparison the car fleet (11) registered an 88% growth for the same period[11] - 10 years. Moreover, with greater merchandise circulation in the Brazilian territory, intensifying the business of agriculture goods expanded the agriculture frontier, thus broadening the areas that have to be interlinked, and in turn, broadening the need for paving transportation roads.

Asphalt sales in Brazil (millions of tons)

Source and projections: Petrobras



The Recent crisis points to a cautious private sector and consumer market, but the 2nd quarter 2009 already shows signs of recovery. The Construbusiness chain is rapidly increasing towards the levels of the previous years and, due to its significance in the economy, should stimulate several sectors, potentializing its anti cyclic effect.

[11] *Source: DENATRAN. Automotive vehicle is for transporting passengers and takes up to eight people, including the driver.*

3. Sustainable growth challenges

Brazil is going through a particularly positive moment. Even in the midst of the international crisis, the Brazilian economy has been springing back rapidly to its powerful course, greatly due to the impulse of the construction industry and more especially housing construction. However, one can see a great dephasement, particularly in infrastructure, between the programming of expenses and the budgetary allotments, and the actual availability of resources and accomplished undertakings.

Priority short and long-term actions should be taken so that the Country can surpass obstacles related to housing and infrastructure.

It is, therefore, fundamental to understand the reasons of such dephasements and bottlenecks that prevent these sectors from presenting more significant and sustainable growth rates. That is the challenge of the *Program of Public and Private Institutional Efficiency* and the challenge of this Construbusiness: reengineering the processes in order to speed them up and lead them towards a planned and continuous sustained development.

The challenges listed ahead require ample public support and mobilization, not only in resources, but in the insertion of information systems, in centralized follow ups and the management of those tasks, as well as the preparation of benchmarks with international reference so as to tune the Country in with well succeeded international practices, mainly in the **simplification and optimization of procedures.**

3.1. Medium and long-term Federal Programs

3.1.1. Housing

PlanHab (Housing Plan) is an unprecedented long-term plan in the housing area prepared by the Federal Government, its main medium and long-term objective is to put Brazil's housing needs into practice, with an efficient directing of existing resources. Its temporal horizon goes up to 2023 with revisions in each Pluri annual Plan (2011, 2015 e 2019).

PlanHab shows scenarios that meet housing needs according to estimates of future availability from the main housing resource sources: Master Budget of the Union, FGTS and SBPE, assuming alternatives for attending different regions and Brazilian family income profiles.

One of the most innovating elements of the plan is the introduction of a subsidy model, which maximizes the participation of the financial beneficiary. That is the reason for the idea of structuring a guarantee fund, in order to reduce bank risks in financing housing for families with monthly incomes between R$ 600 and R$ 1,600, considered as high default[12] by the market. Thus, the model foresees an increasing insertion of the so called emerging medium class in the real estate credit market, promoting a long-term credit access to a public that already knows the meaning of short-term financing.

Additionally, PlanHab also proposes:

- Stimulus to the construction chain, specially RET – Special Tax Regime with rates reduced to zero for Social Interest Housing;
- Transparency of resource sources;
- Implementation monitoring through objective quantitative goals.

[12] *In fact, it is a market share that has not been dealt with by the banking market – therefore the concern of being a part considered of high default risk. The history of default of this market share in other segments, however, seems to have been different.*

Due to its characteristics, the My House, My Life program satisfies the short- term PlanHab goals, The program innovated by introducing an ambitious model of housing subsidies, broadening considerably the total amounts of investmenst in the area, the individual amounts of subsidies (the ceiling amount is R$ 23 thousand) and also the subsided income range to 6 minimum salaries. For the range going from 0 to 3 minimum salaries, the acquisition costs of real estate are almost totally subsided, including exemption of registration fees.

Although these projects rely on the FGTS and SBPE, the greater part of the resources should come from the Nation Master Budget. In operational terms, the MCMV has shown effective advances, especially due to changes in procedures for speeding up the commencement of undertakings and reducing tariffs.

Asides form these advances, which are evident, we must point out that such efforts should be incorporated and perfected at long-term, within the PlanHab.

Housing programs need to be continued in order to obtain a definite solution for the housing deficit, t his increases PlanHab's importance: a long-term planning and budgetary resource temporal horizon, strongly supported by agents of the sector.

3.1.2. Infrastructure

Investment continuity depends on constructing mechanisms, as of now, that guarantee the maintenance of the investment rhythm after the PAC. In order to understand that objective, it is essential to implement an infrastructure program similar to PlanHab – the **PLANINFRA**.

PLANINFRA is a proposition presented by the construction industry chain at the 7th Construbusiness, in 2008. The idea is that the public priority and centralized planning of enterprise principles, the main PAC flags, be extended to more projects for the years after the PAC horizon (2010). The program should therefore consolidate and coordinate investments in energy, logistics and transport, as well as sanitation areas, in line with long-term sector plans, giving priority to investment continuity for sustainable growth. Thus, the same concept of continuity should have the growth Acceleration program PAC lead to the PLANINFRA.

PAC is a short and medium-term program that has been successful in amplifying the amount of resources. However, it needs to modify its procedures, in order to speed up the commencement of works and decrease the distance between allotments and implementation.

The 2014 World Cup and 2016 Olympic Games

The 2014 World Cup, and, two years later, the Olympic Games that will be held in Rio de Janeiro are critical infrastructure points, which pose challenges for infrastructure improvement in general, in order offer all the tourists a good reception, which will insure their permanent return, asides from transmitting a positive image of the Country to the event's global audience. The infrastructure planning for serving the public and the athletes adequately, those that will be going to the event's headquarters, covers several areas: air and road transport, as well as public transport (municipal and state); water and sanitation; energy and telecommunications; and tourism.

In an economic growth recovery scenario with availability of good public resources availability, the priority is the implementation of the Public and Private Institutional Efficiency program, for the implementation of the already mentioned policies, in order to rapidly achieve the expected results.

3.2. Public and Private Institutional Efficiency Program

Summarizing, we understand that the success of an enterprise, whether in housing or infrastructure, involves three main stages:

a. The phase for performing the project;

b. Obtaining licenses and financing to implement the work;

c. Implementation of the project.

The private sector has a strong role in the first phase. Well prepared projects ease the understanding of the viability of the undertaking and the planning of its physic-finance implementation, as well as the possible negative impacts on the environment. As such, the existence of a project, as a rule, reduces the need of re-works, implementation costs, and undertaking risks. On the other hand, lower risks reduce the public departments' analysis time for liberation and authorization.

One of the main obstacles for the existence of projects, previous to the achievement of an undertaking, is the lack of **project culture**. In most cases, there is shortage of qualified workforce (engineers, architects, designers, etc.), this hinders the preparation of a well drawn project. Greater communication with universities and announcing the activities of EBP – Brazilian Projects Structurer, are positive actions that should be taken to solve this problem. The increase of expenses in the project development phase, asides from reducing the risk of stopping the work, can also contribute to the undertaking's final price.

After the elaboration of the project, the private agent then has to obtain licenses and credits. Firstly, for housing, the agent should go to the city hall of the local where the undertaking will be built. Each municipality has its own rules and regulations, however, some of the most common steps are: local inspection, zoning, determining green areas, project viability, communication with several city hall and State departments, periodic inspection to the works, and others, then the agent will obtain the building permit and the real estate registration.

Whether it is a large or small project, most of the public institutions do not differentiate the complexity and the number of documents requested.

For housing, the excess of procedures and the need to present the same documents to different departments (where the interested agent waits for the approval of all of them) generates significant delays in obtaining licensing and financing by public and private Banks. The institutions low capacity in servicing the requirements worsens the situation.

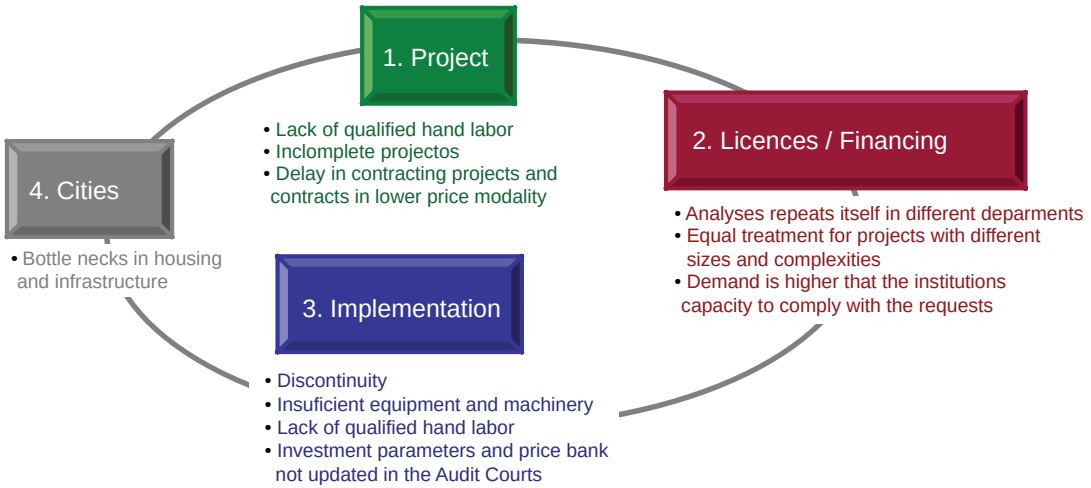
For infrastructure, imperfections at the beginning of the Project (incomplete, partial, lagging or even non existing projects) generate contracting initiatives and allotment of funds pledges that are not fit for approval by Audit Courts. These, in return, do not always guide themselves by adequate parameters of comparison between cost and investment prices, partly because projects and Banks have outdated prices. There is, eventually, an unbalance between the technical team of the institution that originated the project (ministries and government department sectors) and those of the public expenses fiscalization and control institutions.

Results are negative for the public sector (which collects fewer taxes, incentivates informality and does not fulfill its investment agenda) as well as for the private sector that either takes on the costs of inefficiency, or passes them on to the undertaking's final consumers. Furthermore, the uncertainty of the business environment can often make the conclusion of the works impracticable, which in turns causes the market to become more cautious, with probable negative impacts on the development dynamics of the housing and structure sectors.

Lastly, the implementation also faces bottlenecks. Among the most important ones we can point out the disproportions between the demand and supply of equipment and machinery, mainly during periods of economic growth, or even a lack of qualified workforce – issues that can be smoothened by a broader planning and stimulus for the entire chain.

Schematic flow of the bottlenecks of the undertaking phases

Prepared by: LCA

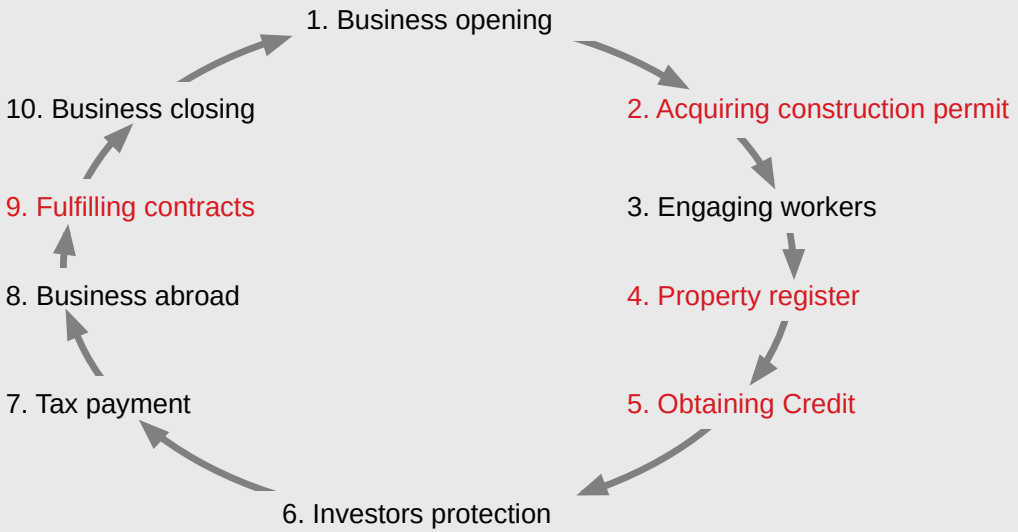


3.2.1. Analysis of the international efficiency indicator

The *Doing Business* document is an analysis that the World Bank has been developing since 2004, focused on the 10 phases of the life of a business, 4 are particularly interesting to *Construbusiness*: obtaining the construction permit, the property register, and credit, and meeting the requirements of the contract.

Ten phases of the life of a business

Source: World Bank 2009. Prepared by: LCA



The World Bank methodology is the same for all 181 countries, regardless if there are any problems or not, in other words it is reliable statistics for **comparing** countries. The idea is to place Brazil among the world economies in order to better direct efforts towards prioritary spheres.

Annex 1 has more details on the research, including indicative tables of Brazil's positioning, summarized bellow.

OBTENTION OF A CONSTRUCTION PERMIT

The time it takes to obtain construction permits in Brazil is critical, and can reach 411 days.
The process involves 18 procedures, in average. This contributes in placing Brazil in the 108th place among the 181 countries.

PROPERTY REGISTRATION

Brazil is the worst country in reference to the number of procedures necessary to register a property:
14 procedures. Time delays got worse in 2008 attaining a total of 61 in comparison to 45 for the previous year.
Cost varies a lot between different Federation Units, the average is 2.7% of the property value.

OBTAINING CREDIT

The greatest difficulties to obtain credit in Brazil are: restriction of collateral and problems in warranting contracts.
Legal rights indexes show weak regulation for borrowers and creditors in Brazil
and the consequent bank reluctance in using guarantees.

CONTRACT FULFILLMENT

In contract fulfillment, Brazil is again among the Latin American countries with the highest
number of procedures (45). The resolution time takes 616 days and costs about 16.5% of the value
involved in the process, which puts Brazil in the 100th position.

One can see that in general that even though Brazil is the world's 9th largest economy, it is behind countries that have much worse socio-economic and political realities, including countries that are going through civil war.

3.2.2. Present scenario of the public institutional efficiency level in Brazil

To better illustrate the present stage of public institutional efficiency, procedures in municipal, state and federal levels were chosen, in order to evaluate the following aspects:

- Approval of housing enterprises at municipal level.
- Documents involved in housing enterprises at State level
- Approval of infrastructure enterprises at State level (for Highways)
- Obtaining licenses at Nation[13] level
- Housing financing (Caixa Econômica Federal)

One should point out that there are situations in Brazil that differ from the case presented here, with different numbers of procedures. Since it is impossible to cover all the cases in just one paper, the cases we chose to present are merely illustrative, and intended to offer a better contextualization of the aspects dealt with in the previous section.

Because of their representativity the city and State of São Paulo were selected as examples:

- São Paulo is the Country's largest finance, production and service center;
- São Paulo's municipal GDP corresponds to 12% of the National GDP (IBGE 2006);
- The State of São Paulo is responsible for 24% of the National GDP (IBGE 2006), where 27% of the construction companies have their main offices with more than 4 employees (PAIC-IBGE 2007), and concentrates 32% of the Country's construction gross income (PAIC-IBGE 2007) and employs 29% of the segment's personnel (SindusCon-SP/FGV Projects and MTE Apr/2009).

HOUSING AT MUNICIPAL LEVEL

Starting from the "Roteiro de Aprovação de Empreendimentos de Interesse Social" (Approval Framework for Social Interest Enterprises) - Plano Integrado de Desmembramento e Edificações com Convênio da Prefeitura de São Paulo (Integrated Plan for Division of Land and Constructions with São Paulo City Hall Covenant), 35 steps were diagnosed until the filing of the process. The license is obtained at the 32nd step and the real estate register at the 33rd step.

The approval and filing of the undertaking are preceded by consulting 11 departments, taking into consideration only the ones linked to the municipal government:

1. APROV – Departamento de Aprovação de Edificações (Department of Building Approvals)
2. CAEHIS – Comissão de Avaliação de Empreendimentos Habitacionais e de Interesse Social (Committee for the Evaluation of Housing and Social Interest) – Secretaria de Habitação (Housing Secretariat)
3. CASE - Departamento de Cadastro Social (Social Register Department)
4. DECONT – Departamento de Controle e Qualidade Ambiental (Department for Environment Control and Quality) – Secretaria Municipal de Infraestrutura Urbana e Obras (Municipal Secretary of Urban Infrastruture and Works)
5. DEPAVE – Departamento de Parques e Áreas Verdes (Department of Parks and Green Areas) – Secretaria Municipal de Infraestrutura Urbana e Obras (Municipal Secretariat of Urban Infrastructure and Works)
6. HABI – Superintendência de Habitação Popular (Superintendence of Popular Housing)
7. PARSOLO 2, 3 e 4 – Departamento de Parcelamento do Solo, respectivamente, Divisão de Estudos Técnicos, Divisão Técnica de Aprovação e Divisão Técnica de Aceitação (Department of Soil Division, respectively, Technical Studies Division, Technical Approval Division and Technical Acceptance Division).

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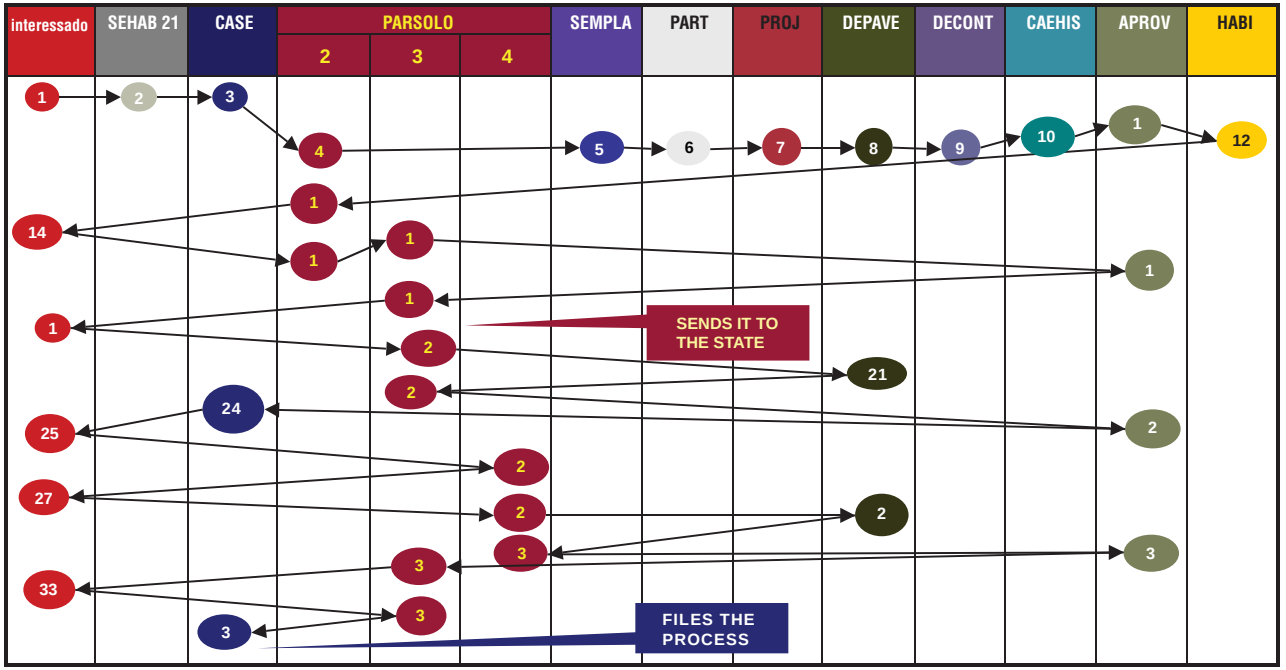
[13] *In the Union's case, IBAMA, which is the department responsible for the analysis, takes care of large projects.*

8. PATR - Departamento Patrimonial - Secretaria de Negócios Jurídicos (Patrimony Department – Legal Business Secretariat)
9. PROJ – Departamento de Serviços Técnicos para Elaboração de Projeto Executivo – Secretaria Municipal de Infraestrutura Urbana e Obras (Department of Technical Services for the Elaboration of Executive Projects – Municipal Secretariat of Urban Infrastructure and Works)
10. SEHAB 21 - Secretaria de Habitação (Housing Secretariat)
11. SEMPLA - Secretaria Municipal de Planejamento (Municipal Planning Secretariat)

Because of this structure, the itinerary activates the same departments several times, such as PARSOLO, APROV, DEPAVE and CASE. PARSOLO (Department of Soil Division) is the most activated: 12 times, 3 for the PARSOLO Technical Studies Division, 4 for the Technical Approval Division and 3 for the Technical Acceptance Division. Annex II shows the steps and activities that each department performs before forwarding the process to the next department.

Schematic flow of the procedures at São Paulo's City Hall for the approval of social interest undertakings – Integrated Plan of division of land and constructions with covenant

Source: São Paulo City Hall. Prepared by: LCA



CBIC estimates that the sluggishness for approval of enterprises increases the final cost of the work in up to 10% (Source: CBIC).

HOUSING AT STATE LEVEL

There are fewer steps for agents that want to perform a housing project in the State of São Paulo, because the documents that should be addressed to different departments are delivered to the same institution, GRAPROHAB – the State of São Paulo's Projects Approval and Analysis Group. The steps are:

a. Project registration

b. First analysis meeting, when technical requirements are determined

c. After the requirements are fulfilled (up to 60 days after the first analysis), the interested party should register the documents at GRAPROHAB

d. GRAPROHAB sends the documents to the departments that will have 30 days for analysis (approved or not granted), which can be extended for another 30 days.

Departments involved:

- GRAPROHAB – The State of São Paulo's Housing Projects Approval and Analysis Group
- SH – Housing Secretariat
- SMA – Environment Secretariat
- CETESB – Environmental Sanitation Technology Company
- SABESP – The State of São Paulo's Basic Sanitation
- EMPLASA S/A – Paulista Company of Metropolitan Planning
- DAEE – Electric Energy and Water Department

In all, 38 documents are required and some are copied for most of the departments involved, as can be checked in Annex III.

INFRASTRUCTURE: HIGHWAYS

According to information from agents of the sector, there are an average of 11 steps from the anteproject until the beginning of the work for highways[14]. The environment license is obtained at step 8, approximately 28 months after the anteproject elaboration. In all, taking into account obtaining the licenses (prior, environment, installation and operation), other legal aspects involved and the setting up and testing of equipment, the work takes 5.5 years.

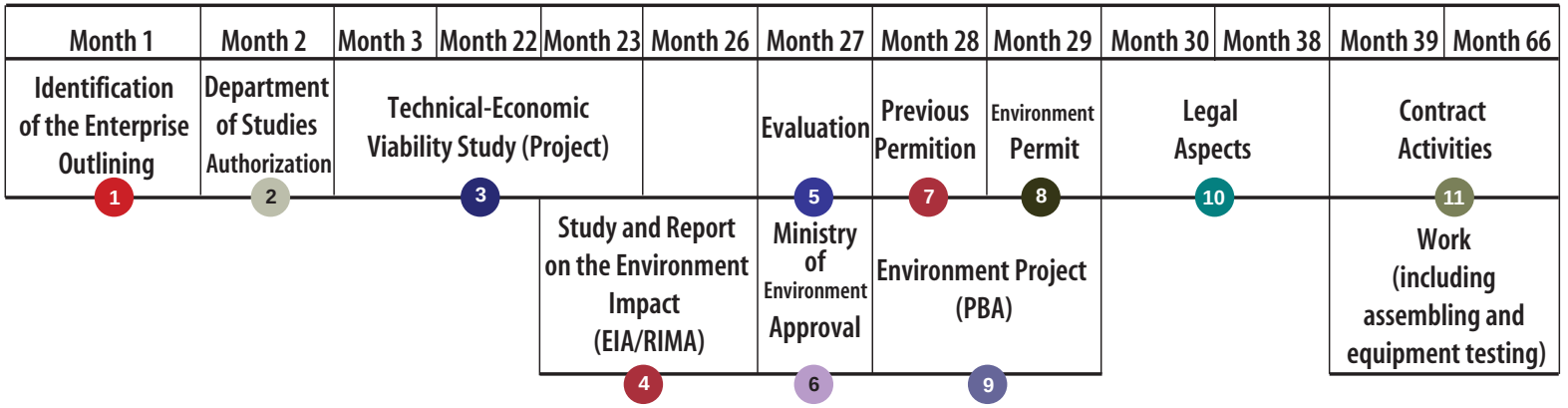
Implementation Schedule for highway enterprises

Phase	Description	Time (months)
1	Enterprise Identification - Outline	1
2	Department - Study Authorization	1
3	Technical-Economic Viability Study (Project)	24
4	Study and Report of the Environmental Impact (EIA/RIMA)	4
5	Evaluation	1
6	Approval of the Ministry of Environment	1
7	Previous Permit	1
8	Environmental Permit	1
9	Environmental Project (PBA)	2
10	Legal Aspects Contractual Activities	11 4
11	Enterprise Civil Work (including setting up and equipment tests)	24

[14] The average time that was considered for the activities that take place in the development process of a highway enterprise, was based on a case made available by Rubpel Engenharia (Rubpel Engineering).

Schematic Schedule for highway enterprise implementation

Source: Rubpel Engenharia. Prepared by: LCA



INFRASTRUCTURE AT FEDERAL LEVEL

Special cases, mainly in Infrastructure, have to be approved by the Federal Government through IBAMA – Brazilian Institute of Environment and Renewable Natural Resources.

According to some surveys, in takes at least 3 years to obtain environment licenses from the IBAMA (Source: Exame Magazine, Abril 2, 2009) and involves the authorization of a Previous License (environment validity and technologic conception), Installation License (beginning of the work) and Operation License (work operation, subject to inspection).

In 2007, the Institute registered only 180 technicians (Source: IBAMA), while Project stocks (waiting line) is estimated in approximately 1.300 cases (Source: Exame Magazine, April, 2nd 2009). Considering the complexity of the cases analyzed by IBAMA and the shortage of personnel, most licenses obtained in 2008 were for undertakings Federal Government considered as higher priority (PAC in this case), which received 45% of the licenses (Source: IBAMA). The most highlighted segment was Highways, which obtained 26.1% of the licenses granted.

Destination of the granted licenses in 2008	
Port	4.4%
Hydroway Resources	3.1%
Railway	11.3%
Highway	**26.1%**
Transmission Line	7.7%
Small Hydroelectric Plant	2.9%
Hydroelectric Plant	5.2%
Thermoelectric Plant	0.4%
Oil	13.2%
Other Activities	25.7%
Total	100.0%

Source: IBAMA. Prepared by: LCA

The delay is visible when one sees that the license of one case, granted in 2008, over a decade after it was requested in 1997 (cassiterrite extraction case in Jamary/RO). In 2007, a license was granted after having been requested 16 years before. In fact, 24% of the 479 issuings of 2008 had submitted their request in previous years. Annex IV shows licenses granted from 2003 to 2008 for requests submitted in previous years.

Even if in average there have been an increase in issued licenses, one can see that there is a large participation of projects that are awaiting solution for over two years. Moreover, this percentage has not scaled down and maintains it self relatively stable – the stock of projects "in line" has been maintained throughout the years (in average, considering the period between 2003 and 2008, 23% *of the granted licenses had been submitted in previous years*). It is quite probable that the cases with greater delays are more complex and concern larger size works, for which there is greater need of information research and analysis[15].

Issuings with submissions prior to the year in question (in %)

Year	Previous Entries
2003	25.4%
2004	23.4%
2005	18.0%
2006	27.7%
2007	20.4%
2008	24.0%
Average	23.2%
Standard Embezzlement	3.5%

Source: IBAMA. Prepared by: LCA

PUBLIC BANK HOUSING FINANCING

CEF - Caixa Econômica Federal is the main housing credit agent. CEF is capacitated to comply with projects in all income ranges, specially the ones allocated to low income population, and is used to evaluate the risk involved in the requests of this income class.

CEF intends to standardize documentation required by different municipalities, respecting the specifications of the public departments involved. It also, adopts sustainable practices. Among its requirements there is proof of good environmental practices by incorporators/constructors, as well as adequate ecologic construction material for renovations.

In the same way, CEF has been trying to simplify its procedures for credit analysis and liberation. Quite recently, the amount of documents and procedures was much larger than now. Presently, for an average[16] profile individual, 21 documents are demanded, with the possibility to include more or less documents, in accordance with the type of enterprise and the applicant's[17] profile.

The document list linked to the average profile individual is in Annex V.

Projects that require acquisition and housing construction demand additional documents, such as: architectonic Project approved by the City Hall, ART – Notes of Technical Responsibility of the Work Performance), License Permit for construction, Register of the work in INSS, Summary of the Technical Specification, discriminative budget – construction, budget summary – construction, physical-finance schedule and civil qualification declaration and data registration of the Responsible Technician.

The documents involved in the Engineering, Legal and CEF Risk Analysis stages can vary. In the Program My house, Your House, the accelerate of the procedures is much greater due to simplified types of projects and

[15] *Due to lack of information, it is not possible to qualify the stock of licenses requested, only the approvals.*
[16] *The average profile agreed upon by CEF is: individual, married under patial separate property, wage earner with fixed income, that wants to acquire a new residential real estate in the city where he/she lives, using the FGTS contribution that exists for more than 3 years (but the spouse does not contribute for more than 3 years), from a legal entity, company.*
[17] *Information available in http://www.feiraohabitacaocaixa.com.br/quaisDocumentos.aspx, accessed in Aug/04/09.*

standardization of the value of the work. One of CEF's goals is to achieve the same time span of the Program also at SBPE level.

Besides procedure changes, there has been a series of improvements in order to improve the efficiency in analysis and liberations: (i) regional superintendence were created with managers dedicated to housing construction; (ii) processes optimization propitiated reduction in the time of legal, engineering and risk analysis up to 15 days, which made enterprise contracting possible in up to 30 or 40 days, depending on the jurisdiction approval; (iii) business platforms for housing construction were implemented to optimize the contracting process of financings for production; and (iv) Mesa Corporate was created to comply with large constructors.

3.2.3. Intentional Agenda for the Program of Public and Private Institutional Efficiency

The objective of the intentional agenda is to cast actions that we see as fundamentally important to increase the efficiency of the procedures in Brazil, not only for the *Construbusiness* chain, but all the economy.

The main actions are I line with the world tendencies:

- Ensure qualified personnel and in sufficient quantity to guarantee the contracting, analysis and inspection of the Projects, with the necessary quality and deftness for enterprise contracting and public works;
- Rationalization of the inspections: authorities act on the final stages and possibly authorized independent professionals perform inspections during the work;
- Informatization of the license permits;
- Integration of services and forms, not only instituting a unique counter, which facilitates handing over documents, continuing with several analysis departments;
- Elimination of notary tariffs and costs for enterprises dealing with social interest housing, as a way to increase lawfulness;
- Simplifying procedures for smaller projects;
- Reduction of the transfer tax and instituting a fixed uniform tax for registration;
- Electronic unification of Notaries and Real Estate Records;
- Principle of concentration on the registration: include in the real estate registration all the constriction, burdens, restriction and other rights or obligations that are referent to the real estate;
- Informatization: sole national register online and monitoring online;
- Reduction of the possibility of advancements or resources against the decision;
- Specialized Courts: training and rule adjustments.

Some actions have already been discussed/implemented by public departments. Such as:

- Special Secretariat of Debureaucratization of the South Part of São Paulo municipality is testing the informatization of the license permits;
- São Paulo State has been analyzing the adoption of a Project classification by risk;
- In São Paulo State, GRAPROHAB (São Paulo State Housing Project Analysis and Approval Group) adopted an even better action, which concentrates the document receiving for several analysis departments, avoiding unnecessary voyages;
- The program "Destrava IBAMA" (Release the Break IBAMA), although it has been implemented in 2008 by the Ministry of Environment, is still incipient, it aims at reducing the time to obtain licenses, among other actions, by making changes in the processes and increasing the number of employees, having under analysis the institution of a unique protocol for IBAMA, ANA (National Agency for Water) and ICMBio (Chico Mendes Institute of Biodiversity Conservation)[18].

[18] *Information available in http://www.ibama.gov.br/wp-content/files/Agiliza-Ibama.pdf, accessed Aug/11/2009.*

3.3. Improvement of projects

The better structured the project, less are the chances of stopping the work and, consequently, better use of the resources. For that, some action requires acceleration:

- The need for the elaboration of executive projects, for only with those does one have the complete definition of the work and, in when there are contracting made by the public administration (with or without partnership with the private sector), the work should be preceded by the executive Project;
- Abolish Project contracting for lower price, considering that Project service differs from other engineering services;
- Applying Special Regime of Contracting when allowing the same company to offer to make the study and participate in the bidding, as the projects at energy areas and ports and at PPPs; and
- Try to reinforce teams of project generation at the sector Ministries and sub national secretariats) as a way to make viable the realization of a realization effort and Project monitoring, fortuitously a partnership with EBP (Brazilian Project Company).

Executive projects dimension costs with precision and determine the time necessary for safe construction, with quality specified in the work, as well as in the equipment to be setup, helping in a direct way for the good development of the enterprises and avoiding the interruption of the work and additions to the contract. That reduces the risks for the contractor as well as for the contractee, given the greater proximity between the estimated costs and those actually incurred. The executive projects should precede the work especially in the enterprises contracted with public resources. In the case of conceptions, the private sector takes on the technical and economic risks, being able to contract according to their criteria, even while being supervised by the Grantor Power.

Something to point out is in the formulation of more complete contracting terms. In the contracting process (via biding or not), the characteristics desired for the enterprise should be specified in a precise way, explaining the quality guidelines of all the project components and enterprise, to be delivered, clearly, and the legislation should also point out the contracting recommendation of executive project.

Although the involved procedures require a longer time for the adequate elaboration of the engineering executive project, together with the environment reports, adopting executive projects provides greater efficiency at the invested resources employment.

Better specified contracting allied to complete executive projects reduce work interruption risk and, consequently, tend to bring closer the values in appropriation and the executed ones.

In concession cases or in PPPs, following the same guideline to increase the efficiency in the Project elaboration and performance, it should be allowed for the same agent to elaborate the Project and the possibility to perform the enterprise, as already presently in PPPs. Such an action would decrease the bottlenecks of projects that are prepared and wait for the selection of companies that are capable of performing them, mainly at short term, given the already known specialized hand labor shortage for project preparation.

Energy area relevant enterprises, such as recent Rio Madeira projects, were made so that private agents could elaborate the economic pre-viability study and at the same time participate of the competition, thus being able to recover the expenses with studies, via work cost (in case the bidder that did the study wins) or via indemnification (in case that bidder does not win).

3.4. Legal security in public contract

Among the various problems that make it difficult to administer Justice in Brazil, one of them stands out: the slowness in solving demands, a few of which lag on for years, causing significant damages to the litigants and those who need to reestablish offended rights. This specific point weakens the legal security of the Brazilian business environment.

Without agility, it is impossible to exert one's rights, even if they are unequivocally guaranteed by the Constitution. This is the case for public contracts (based on services rendered, work performing in concessions and public-private partnerships) that, as perfect legal acts, are covered by constitutional guarantees.

The desired and necessary **legal security of contracts**, mainly public contracts, forcibly depends on the rapidity and efficiency of the Justice System. The law determines the legal security of contracts, but when rights are violated, the only solution is to request the protection of the courts.

Legal security is consecrated as the reiterated practice of the respect of the law and public contracts by Public Agents. When this reiterated practice is recognized by Society as an intangible asset, it consolidates the institutions and generates credibility within the community of private agents.

In order to preserve the legal security of contracts, we need to promote accelerate Justice administration, and judgments must materialize, without delay. The legal security of public contracts resides in the execution of sentences pronounced and transited in rem judicatam. However, asides from a swift Justice System, sentences must also be prompt and quick.

Procedural slowness is one of the factors that most effects the administration of Justice, provoking delays in the solution of disputes, loss of efficiency in sentences, and a lack of confidence in the courts' performance. This situation has worsened because citizens are more inclined to go to court, due to social and economic transformations, as well as a greater awareness of their rights.

Some measures have been suggested for attaining greater celerity. The House of Representatives, for example, approved, in the beginning of July 2009, a proposal that should contribute to easing the congestion of dockets in the STF (Supreme Federal Court) and STJ (Superior Court of Justice). The PL (Law Project) 3778/08, authored by the Representative Paes Landim (PTB-PI) — finally approved by the CCJ (Commission for the Constitution of Justice and Citizenship)—, renders difficult interlocutory appeals (appeals against interlocutory decisions pronounced in a lawsuit) to superior courts.

This type of appeal is processed separately from the original lawsuit and is usually used to force the submission of an appeal to the STJ or of an extraordinary appeal to the Supreme Court.

If this proposal is also approved by the Senate, interlocutory appeals will be processed in the docket of the original lawsuit and analyzed by the judge responsible for the case.

If the appeal to a higher court is once again dismissed, the lawyer can still present the interlocutory appeal to the superior court, but if it is ruled manifestly inadmissible, the appellant will be condemned to pay a fine of up to 10% of the updated value of the matter in dispute.

The project was introduced by the Relator, Representative Regis de Oliveira (PSC-SP), who casted a favorable vote with three amendments: two on the wording and legislative technique and another excluding a disposition that "would condition the superior appreciation of the appeal to the payment, by the appellant, of the costs of the execution", because he considered that this disposition could violate the Federal Constitution.

In 2008, interlocutory appeals represented 34% of all the causes judged by the STJ and, according to the Court, the number of this type of appeal grows

year after year – from 2007 to 2008 there was an increase of 7.2% (a total of 121,106).

The number of interlocutory appeals even surpassed special appeals to the Superior Court - 106,984, and are 50% over the third type of causes most judged in the court, the regulatory appeals - 51,195.

Only in the first five months of this year, 48,233 interlocutory appeals have already been submitted to the STJ, with an additional 1,727 interlocutory appeals for submission to the STF.

With the adopted measures (Binding Precedent, General Repercussion and the Law of Repetitive Cases), along with others that will be added, lawmakers expect to succeed in making Justice effectively swifter, attending to the yearnings of those who seek to defend their rights, guaranteed by the Federal Constitution. Only a quick Justice can enforce the wise principle of legal security, often threatened by the change in norms and rules imposed by the State.

It would be very auspicious to guarantee legal security in public contracts in view of, for example, the Soccer World Cup and the Olympic Games in Brazil, which shall be held shortly and are arousing intense interests among internal and external investors.

Ultimately, an accelerated administration of Justice is the only way to guarantee the safeguard of rights.

4. Legal Security - example: Precatories

Precatories are debts that have been acknowledged by a final Court decision, which orders that a public debtor entity pay the sum determined in the precatory.

The issue of judicial precatories is emblematic and demonstrates the imperious need for an accelerated Justice System, because, if Justice is not fast, even constitutional protections (vested rights, perfect judicial acts and res judicata) will not be respected.

It is important to remember that since the Federal Constitution of 1988, payment of judicial precatories has been postponed twice. First for a period of eight years and, second, while in full force, for a period of ten years (Constitutional Amendment nº 30/00), this without taking into consideration the Proposal for Constitutional Amendment nº 12/06 (PEC for Precatories), recently approved by the Federal Senate and now in course before the Federal House of Representatives under nº 351/09, which also modifies the systematics of precatory payments.

These inconsistencies are a menace to the rights of precatory detainers, provoking judicial insecurity.

Constant alterations in the systematics of the payment of judicial precatories offend intangible constitutional dispositions, such as vested rights, perfect judicial acts and res judicata, established in the 5th clause, paragraph XXXVI, of the Federal Constitution.

It is convenient, therefore, to definitively seek legal security for public contracts, in view of the World Football Cup and Olympic Games that will be held shortly in Brazil and are arousing intense interests among internal and external investors.

The FIESP, with the support of the OAB (Brazilian Bar Association) and the CNI (National Confederation of Industry), requested that the LCA elaborate a proposal for improvement of the PEC nº 351/09, that consists in the creation of an Investment Fund in Infrastructure and Housing, to which precatory detainers can adhere, using them alternatively to receive payment in chronological order or in an auction.

States and Municipalities would issue government bonds in the exact amount of the credits held by the precatory detainers that have opted to adhere to the Investment Fund for Infrastructure and Housing, which would be purchased by the National Treasury.

Resources from the National Treasury purchase would be directly transferred to the fund and used for payment to the detainers of precatories. The Federal Union shall, however, have the right to retain values from the allowance that will be transferred to the State and Municipalities Participation Funds, corresponding to the respective percentages of their current net revenue destined to the payment of judicial precatories.

5. Additional Agenda: points to consider in Housing and Infrastructure

The objective of this section is to gather relevant actions for the Housing and Infrastructure agenda, which should be the target of more detailed studies, due to its relevance and complexity.

5.1. World Cup 2014 and Olympic Games 2016

The Football World Cup event that will take place in 2014 in Brazil and the recent election for Rio de Janeiro to host the 2016 Olympic Games imposes great challenges in the infrastructure field, which should be overcome in a **short term**. It is essential that the work be taken as priority in the public departments to accelerate up the project elaborations, license granting, resource liberations and beginning of the works. If the process is not started soon, the viability of the event could be jeopardized.

The Ministry of Tourism estimates that 500 thousand foreigners will be arriving in the Country to watch the Cup, making infrastructure general improvements imperative to service tourists and to be sure to convey a positive image of the Country

Among the main tourism challenges, the most outstanding are:

- Airports: expansion and improvement of the terminals and air lines
- Increasing the hotel network

In infrastructure, some relevant difficulties should be overcome:

- Energy and telecommunications: the event requires great zeal for the success and safety action should be taken
- Access to cities and stadiums, taking into consideration, airport working hours as well
- Urban modality: regular transport x individual transport
- Sanitation: removal and treatment of garbage and sewage

5.2. Urban infrastructure: mobility and accessibility

One of the fundamental principals guaranteed by the Brazilian Constitution is that the individual has right to freely come and go. However, the right to exercise it can be jeopardized, when there is no urban space planning. Urban mobility is a crucial point to be watching out for.

The physical growth of the city involves modifications in urban spaces, making adjustment even more necessary for the accessibility and changes in the very infrastructure that serves them. For that, urban planning should aim at facilitating the commuting people and dislocation of loads between urban spaces and other sites of interest in the region, considering that the increases in activities in a place implies a broader interconnection of workers and vehicles. The ways must be capacitated to serve a growing flow of vehicles, with parking places, and the public transport requires lines that allow for reinforcement in times of greater demand.

The infrastructure of the cities, specially energy, water and sanitation, should also maintain capacity level, idle enough to avoid overloads that would obstruct the maintenance of the servicing.

In the last years, the flag of accessibility has been raised in all levels of government and, mainly, in the organized society. The Law publication (Federal, State and Municipal) and the rules for the construction of spaces and public roads, besides spreading good practices, demonstrate that society's awareness already exists to assure the exercise of citizenship to all Brazilians.

The public space should adapt itself to those laws. One of the priorities consists in public promenades, which is the part of the public way for people to circulate. The Law determines that the promenade should serve all citizens with autonomy and safety, independently of age, mobility or perception limits and height.

Among the priority actions to assure accelerate, autonomy and safety in urban spaces, the following stand out:

- Revision of bus lines, giving priority to direct routes between home locations, work and recreation;
- Adapting public transport with access slopes;
- Rational planning of public squares and ways, optimizing the space for parking;
- Discipline cargo circulation timetable, considering the harmonization of interests of the productive sector and pedestrians;
- Standardizing sidewalks; and
- Elimination of architectonic barriers in public ways and sidewalks with better accessibility by impaired people (visual, mental, physical, etc.), which still find difficulty to move about independently.

5.3. *Funding* for housing and infrastructure

Funding for housing and infrastructure is predominantly performed by public banks. The caution in the private sector under moments of crisis increased the public sector's participation since the 4th quarter of 2008. Public banks credit in 2008 grew 40%, while private banks credit grew only 27%, according to BNDES'[19] survey. Between September and December 2008, public credit expanded 12.9% as an anticyclic action, and the private 3.2%. With that, public banks contributed in 43% for the total growth in 2008 (in 2007 their contribution was substantially smaller, around 25%).

Growth rate of the credit operations and contribution to public and private banks growth

	Growth rate of credit operations (in %)		Contribution to growth (in %)	
	Public Banks	Private Banks	Public Banks	Private Banks
2004	15,0%	22,0%	31,6%	68,4%
2005	16,0%	25,0%	28,7%	71,3%
2006	20,0%	21,0%	36,1%	63,9%
2007	19,0%	33,0%	24,7%	75,3%
2008	40,0%	27,0%	43,2%	56,8%
Average	22,0%	25,6%	32,9%	67,1%

Source: BNDES, based on data of the Central Bank. Information available at http://www.bndes.gov.br/SiteBNDES/export/sites/default/bndes_pt/Galerias/Arquivos/conhecimento/visao/visao_63.pdf, accessed in 27/07/09.

[19] *Information available in http://www.bndes.gov.br/SiteBNDES/export/sites/default/bndes_pt/Galerias/Arquivos/conhecimento/visao/visao_63.pdf, accessed Jul/27/09.*

As per information obtained at the Caixa Economica Federal, on the cumulated up to mid July 2009, CEF was responsible for 77% of the contracts and 60% of the financed housing values with SBPE resources. Those percentages rise to 85% and 73% respectively, when the financings with FGTS resources are also considered. Those data show that CEF's importance in housing financing is significant to make viable the government programs reserved for the low income people, but it does more, supplies programs to other income classes.

With the crisis that started on the last quarter of 2008, there was a brief retraction in private banks credit offers, but in the 1st semester of 2009 one can already see a recovery of the attention to the real estate market. During the crisis peak, CEF maintained the credit offer rhythm foreseen for 2008.

Federal programs, such as *My House, My Life* have been generating positive externalities in the *Construbusiness* sector. After launching the program *My House, My Life*, there was a growth in the production of new housing units, mainly for the people targeted in the Program. The market growth is reflected directly on new jobs, on construction material industry warming up and in the recovery of the economy activity of the Country.

Within the idea of resource continuity and maintenance of warming up real estate for low income people, PEC 285/08 – Proposal of Worthy Home Constitutional Amendment, foresees the relationship of public resources for social interest housing:

- Union: 2% of the resources coming from taxes and contributions after the mandatory constitutional transfers for the States, Federal District and Municipalities (COFINS, PIS/PASEP, CSLL, Education Salary, "S" System, CIDE, etc., excluding patronal social contribution resources and of the workers for Social Security General Regime and of the social contributions for public serves social security)
- States and Federal District: 1% of the revenue proceedings: (i) from state and district tax collections; (ii) percentage (21.5%) of the Income Tax and of the Tax on Industrialized Products transferred by the Union to the States and Federal District Participation Fund; and (iii) percentage (10%) of IPI transferred by the Union proportionally to industrialized products exportation, excluding resources transferred to municipalities.
- Municipalities: 1% of the following resources: (i) municipality tax collection, part of taxes received from the Union for the FPM – Municipalities Participation Fund; (ii) percentage (22.5%) of the Income Tax and IPI transferred by the Union to the FPM – Municipalities Participation Fund; and (iii) percentage (25%) received from the states referent to the collection part sent to IPI transferred by the Union proportionally to exportation of industrialized products.

According to expectation of the 2009[20], budgetary revenue, 2% of the value updated by the Ministry of Planning, Budget and Management in the third bimonth 2009, except for transfers to States and Municipalities, which means, R$ 437.5 billion, would totalize R$ 8.8 billion a year[21]. The *My House, My Life* Program, foresees an appropriation of R$ 34 billion (housing: R$ 20.5 billion originating directly from the Union and R$ 7.5 from FGTS; infrastructure: R$ 5 billion from the Union; productive chain: R$ 1 billion from BNDES) in 3 years.

PEC 285/2008 (PEC of the Worthy Home) was approved on April, 7, 2009 by vote in the CCJ – Constitution, Justice and Citizenship Comission of the House of Representatives and is waiting to be analyzed the Special Commission.

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[20] *Information available at www.planejamento.gov.br/.../relatorio_avaliacao_3_bimestre_2009.pdf, accessed in Aug/04/09.*

[21] *Evaluation of the Secretary of Housing and Urban Development of the State of São Paulo show that, with PEC, the resources for housing, sanitation and infrastruture sum R$ 25 billion a year. Information available at http://www.moradia.org.br/index.php?option=com_content&task=view&id=124&Itemid=5, accessed in Jul/31/09.*

If is approved by that Commission, it will follow for voting in 1st and 2nd turn by the House of Representatives and then by the Senate.

Looking at private resources, small banks have specially a smaller action range, than the public institutions, to comply with the low income segments. As they are not used to deal with persons of low income, they might measure the risks wrongly.

About the credit offer, however, it is important to evaluate the bank spread situation, which, even in the present scenario of decrease of the present basic interest rate, does not reflect the decrease in interests. That evaluation seems important while considering a long term policy for financings, incentivating better credit offer.

In the infrastructure segment, BNDES is the main finance agent. With the shortage of credit in the private sector after the aggravation of the international financial crisis, BNDES' role was emphasized. It contributed with 32% in the entire the credit variation between September and December 2008.

Despite the good housing financing performance and designating part of the funds collected by Savings reserved for housing, the stability of the funding for housing is indispensable, independently of Federal decisions that can be taken in the near future, directed to the resolution of fund resource allocation to Savings. That is why it is important to have a stable funding reserved for housing and that should be seen as a public policy and not as an investment alternative..

5.4. Technologic Innovation

The recent picture of the construction sector shows a competitive growth and a permanent search for performance improvements. That is why innovation, in its different modalities, plays a relevant role in companies' strategy, allowing them to cope with the increasing market demands, being it quantitative, qualitative or of price.

However, not all the companies of this sector are well positioned in what concerns the innovation processes, being up to the government and related entities to guide them so, to maximize the results of the necessary investments.

Innovating construction products – residential, commercial or industrial buildings or infrastructure works – aim at adding new attributes to them, making a difference in the already existing performance standard, either by performance, such as a more resistant paving for roads, or for answering to new market demands in services or performance attributes, incorporated to the units. The most popular in this line, are the more sustainable edification, with a better energetic performance and the possibility of differentiated prices and greater product added value.

The innovations in the productive processes aim basically to reducing costs and time span, either by introducing new manufacturing technologies (actual technological innovations), or by means of new models to organize and manage production structures (organizational innovations).

Both cases aim at quality and productivity improvement, reducing work and the material that is to be applied, as well as by minimizing losses during the processes.

Those innovations in productive processes, quite often, demand product redesigning, in order to allow for a greater standardization and stability in the processes. But it still does not mean, necessarily, product standardization, although it was the strategy at the beginning of the construction industrialization. Presently, production IT control allows for greater flexibility and product differentiation, without the value losses due to a very homogeneous product line.

Technology innovations involve the need for new qualifications for hand labor, and that demands better education.

Executing the Program *My House My Life* and PAC, as well as PlanHab and later, PlanInfra, need to be followed by those innovation efforts of the productive and managerial processes so that the wanted results can be achieved with minimum losses, varied products, quality and performance of greater economic, social and environmental sustainability.

5.5. Sustainable construction: durability and preservation

It is necessary to achieve economic development in harmony with the ecosystem in a policy of sustainable development. This is a must in the construction industry.

Certainly, in infrastructure planning, the durability issue is fundamental, either by the environmental point of view, by the mitigation of non renewable raw material and CO2, or by the economic benefit, providing the entire society with: less work maintenance costs through a longer life cycle, improvement people's commuting facilities, increase in productivity, reduction of fuel consume, vehicles breaking down, and other factors.

In the same way, water preservation is fundamental, using less concrete with less water/cement relation, recycling water, mitigation of losses through pluming or contamination of the hydro resources through sewages or by defective or poor performance pipe lines. All those factors can be avoided. In the housing issue, including offices, hospitals, schools, factories, etc., not only material durability should be fomented, use of recyclable materials and adequate projects, but also and mainly building operations. Greater costs go into operating the buildings and not into its construction.

Buildings are responsible for 50% of energy consumption and the same proportion of CO2 emissions. According to the *Environmental Protection Agency* (EPA), if all American buildings would take on more optimized windows, lamps, heating, and air conditioning conditions, 25 billion dollars would be saved with 30% of energy economy.

In Brazil, the environment inducement should be through economic encouraging. In the purchase of more ecologically adequate real estates, the purchasers would take advantages of fiscal reductions or partial tax exemptions or of less municipal real estate tax, or even, in the rental reductions.

The government can implement energy economy programs, similar to other countries, subsidizing partially the old domestic appliances exchange for more efficient ones, substituting or implementing better thermo windows (better energy conservation) and more efficient air conditioning equipment, more efficient lamps, decreasing taxes on recyclable materials to make them economically competitive and viable, besides fomenting the use of longer life cycle materials.

Without the economic inductors, the environment issue might occur in an extremely slow way.

CONSTRUBUSINESS 2009: final consideration

Brazil is going through a unique moment, recognized worldwide: macroeconomic conditions quite favorable to growth, mainly (and partly made viable) through the construction industry's performance. Specific anti cyclic actions, implemented with agility, focusing housing construction and pursuing prioritization of expenses and investments in infrastructure. Consequently, they were fundamental to sustain Brazilian economy performance and differentiate it from the others in the recent context of the international crisis.

Even so, there are still relevant adjustments to be made in order to assure that those actions produce the desired effect in the **short term** and, at the same time, assure that those short term actions land, in the **long term**, on broader horizon programs, (PLANHAB, current; and PLANINFRA, proposed here), taking Brazilian economy to a sustainable growing course.

For the **short term**, it is urgent to centralize efforts in rationalizing analysis procedures and work liberation (valid for finance analysis processes and budget resources liberation) and in accelerating project contracting and pre-viability studies in order to create adequate expense planning conditions and public resources pledge.

It deals with creating, within the governments, adequate conditions of personnel and resources, as well as good practice references (benchmarks) for public work and service contracting and for project managing, including optimization of analysis and control procedures.

We believe that this agenda of priority actions, plus the forwarding of the points to consider, pointed out in this Construbusiness 2009 edition, will take the Country, by means of the construction industry chain, to consolidate a development with virtuous and sustainable course, with beneficial results to the entire society.

ANNEX I

CHARACTERIZATION OF THE FOUR COMPONENTS OF INTEREST OF THE RESEARCH "DOING BUSINESS 2009" PREPARED BY THE WORLD BANK:

CONSTRUCTION LICENSE, PROPERTY REGISTER, OBTAINING CREDIT AND CONTRACT FULFILLMENT

CONSTRUCTION LINCENSE

The following procedures integrate what the World Bank calls to obtain construction permits:

a. Submitting projects to the authorities;

b. Obtaining permits and licenses;

c. All the notifications;

d. All the inspections; and

e. Energy, telephone, water and sanitation connection conclusion.

The "average" company taken into consideration to obtain construction permit has to cover the following requirements:

- Medium and small size company, national origin, located at the largest entrepreneur Center of the State, with 20 qualified employees; and
- Intends to go into new construction, with the plans prepared, without special destination (that is, except for food, chemicals or pharmaceutics), that wants to be linked to the networks (energy, telephony, water and sanitation) and takes 30 weeks to build.

Three credits contribute to construct the ranking of construction permit: (i) quantity of procedures to obtain the permit; (ii) time to obtain the construction permit; and (iii) the cost to obtain it. In 181 countries, Brazil is qualified as 108th. The *Doing Business* 2008 (data 2007) indicated Brazil in the 105th place, which means that the time to obtain construction permit became worse.

Number of Procedures			
Brazil			18 (18 in 2007)
Latin America (17 countries)	Better	Venezuela	11
	Worst	El Salvador	34
World (181 countries)	Better	Denmark	6
	Worst	Russian Federation	54

Time to obtain the licenses (in days)			
Brazil			411 (316 in 2007)
Latin America (17 countries)	Better	Colombia	114
	Worst	Brazil	411
World (181 countries)	Better	Korea	34
	Worst	Zimbabwe	1.426

Cost to obtain the licenses (in % of income per capita)			
Brazil			46,70 (59,4 in 2007)
Latin America (17 countries)	Better	Brazil	46,70
	Worst	Guatemala	1.204,10
World (181 countries)	Better	Catar	0,8
	Worst	Liberia	60.988,70

The cost measuring as income percentage is only to compound the ranking of the World Bank. It is not about a good cost measuring, considering that the richer economies, as the oil plants, have a high per capita revenue and can mask the indicator.

PROPERTY REGISTRATION

The index of easiness in obtaining the property registration is compound of 3 criteria: number of procedures, time and cost to register.

In general, Brazil is in 111th position. The *Doing Business* 2008 (data 2007) put Brazil in the 115th position, indicating an improvement in this query.

Number of Procedures			
Brazil			14 (14 in 2007)
Latin America (17 countries)	Better	Argentina	5
	Worst	Brazil	14
World (181 countries)	Better	Norway	1
	Worst	Nigeria/Brazil/Argelia	14

Time to obtain the registration (in days)			
Brazil			61 (45 in 2007)
Latin America (17 countries)	Better	Equador	15
	Worst	Nicaragua	124
World (181 countries)	Better	New Zeland	2
	Worst	Kiribati	513

Cost to obtain registration (in % of the propriety)			
Brazil			2,7 (2,8 in 2007)
Latin America (17 countries)	Better	Guatemala	1,1
	Worst	Argentina	7,5
World (181 countries)	Better	Saudi Arabia	0,0
	Worst	Siria	28,0

CREDIT OBTENTION

The index to obtain credit is based on 2 sub indicators: the strengthening of legal rights, which is, if there are rules for collateral and credit register, and reach for the information of credit.

In the first sub indicator, with grades going from 0 to 10, countries that have legal rights consolidated are graded 10, Brazil's grade is 3, while in the second, that grades from 0 to 6, the maximum grade is obtained by countries that credit information reach is high, Brazil was graded 5. In the last few years, there was no change in grading, according to documents taken from Doing Business. The general position (weighted average of the two sub indicators, the first having a weight of 62.5% and the second 37.5%) is 84, while in 2007 was 79. Malaysia showed a higher grade (1st position) and Palau, the lowest (181st position).

Two other indicators are: coverage of public and private department registers. For public departments, Brazil showed a significant improvement. In 2008, the coverage for the adult population was 20.2% in 2007 17.1%. The main evolution is shown when comparing 2004 data (*Doing Business* 2005), 7.8% only for adults. For the private departments, the main improvement happened between 2007 and 2008, the coverage went from 46.4% to 62,2%.

Strengthening of the legal rights (0-10)			
Brazil			3 (3 in 2007)
Latin America (17 countries)	Better	Guatemala and Peru	7
	Worst	Bolivia	1
World (181 countries)	Better	Cingapure, Hong Kong, Malasia and Quenia	10
	Worst	Palau, West Bank/Gaza	0

Credit information reach (0-6)			
Brazil			5 (5 in 2007)
Latin America (17 countries)	Better	Argentina, Bolivia, El Salvador, Honduras, Mexico, Panama, Paraguay, Peru and Uruguay	6
	Worst	Venezuela	0
World (181 countries)	Better	South Africa, Alemanha,Japan, Argentina,Bolivia, Canada, USA, Mexico, Paraguay, Uruguay, Peru, United Kingdom and others	6
	Worst	Luxemburg, Irak, Siria, Venezuela and others	0

Coverage of public departments register (% of adults)			
Brazil			20,2 (17,1 in 2007)
Latin America (17 countries)	Better	Equador	37,7
	Worst	Colombia, Mexico, Panama and Venezuela	0,0
World (181 countries)	Better	Portugal	76,4
	Worst	Afganistan, South Africa, Australia, Cingapure, USA, Denmark, Hong Kong and others	0,0

Coverage of private department register (% of adults)			
Brazil			62,2 (46,4 in 2007)
Latin America (17 countries)	Better	Argentina and Nicaragua	100,0
	Worst	Venezuela	0,0
World (181 countries)	Better	New Zeland and United Kingdom	100,0
	Worst	Afganistan, Argelia, Belgium, China, Congo, France, Siria, Venezuela and others	0,0

Despite the sophisticated credit information in Brazil, there still isn't a positive register. The report also shows guarantee contract problems. To comply with a contract, it has to be registered at the notary's office of the debtor. However, the notaries are not interlinked and there is some difficulty in getting information on the guarantee, it can take weeks. Moreover, the rules for borrowers and creditors are weak, so the banks are reluctant in using guarantees. The guarantees have to be identified separately for the borrower, generating uncertainty when substitution of assets occurs. For the creditor, one needs a legal action to possess the guarantees, and then to have them sold at

public auction. As there are judicial procedures and resources in favor of the borrower, it can take 4 to 5 years to comply with the decision and during this time the asset remains with the borrower.

The time and cost to create guarantees vary very much among the Federation units. Minas Gerais State takes only 2 days to create and register guarantees, while in the Federal District it takes 45 days. In reference to costs, in Rio de Janeiro one pays 0.2% of the loan's value, while in Ceará that cost goes to 3.8% of the value.

CONTRACT COMPLIANCE

To evaluate the contract compliance degree, Doing Business uses 3 indicators: (i) number of procedures to resolve a process that goes to court; (ii) time taken for the resolution of a contract; and (iii) cost of the procedures. The general ranking among the 181 countries that start with equal weight average for the 3 indicators went from 103 in 2007 to 100 in 2008, due to the worsening of some countries, as the indicators did not change during that time.

Number of Procedures			
Brazil			45 (45 in 2007)
Latin America (17 countries)	Better	Venezuela	29
	Worst	Honduras and Brazil	45
World (181 countries)	Better	Ireland	20
	Worst	Brunei	58

Contract Resolution time (in days)			
Brazil			616 (616 in 2007)
Latin America (17 countries)	Better	Mexico	415
	Worst	Guatemala	1.459
World (181 countries)	Better	Cingapure	150
	Worst	West Timor	1.800

Cost (% of the value involved in the process)			
Brazil			16,5 (16,5 in 2007)
Latin America (17 countries)	Better	Argentina	15,5
	Worst	Colombia	52,6
World (181 countries)	Better	Bhutan	0,1
	Worst	West Timor	163,2

ANNEX II

Procedures at São Paulo City Hall for the approval of social interest enterprises - Integrated Plan of dismemberment and constructions with convention

Phase	Description
1	The interested party files na application with the necessary documents at SEHAB 21
2	SEHAB 21 registers
3	CASE (Social Register Department) writes a Technical Data Report: making official, improvemnts, street making, water source, environment heritage, official register, contamination level, etc.
4	PARSOLO (Parcels of Land) 2 (Land Parceling Department – Technical Studies) does the Preliminary Analysis of the implementation proposal: • Survey • Ownership Security • Natural-environmental urbanist charachteristics of the area and environment
	PARSOLO 2 consults with the involved departments:
5	SEMPLA (Municipal Secretariat of Planning): zoning
6	PATR (Equity Department of the Secretariat of Legal Affairs): own municipalities
7	PROJ (Department of Technical Services for the Elaboration of Executive Project of the Municipal Secretariat of Infrastructure): upgradings, FNA (Architects National Federation)
8	DEPAVE(Department of Parks and Green Areas of the Municipal Secretariat of Urban Infrastructure and Work): green area selection, APP
9	DECONT (Department of Control and Environment Quality of the Municipal Secretariat of Urban Infrastructure and Work: contamination and degradated areas
10	CAEHIS(Evaluation Committee of Housing Entreprises of Social Interest of the Housing Secretariat): if necessary
11	APROV (Department of Approvals of Constructions) analysises the viability of constructions and forwards it to HABI (Superintendency of Common Housing)
12	HABI formalizes the convention and forwards it to PARSOLO 2
13	PARSOLO 2 issues a guideline certificate (valid for 360 days) and forwards it to CASE to be registered
14	The interested party presents the land subdivision integrated plan project - implementation, profils and constructions, according to the issued Guidelines and necessary documents
15	PARSOLO 2 verifies if the implementation project of the land subdivision covers the Guidelines and forwards it to PARSOLO 3 (Department of Land Parceling - Technical Division of Approval)
16	PARSOLO 3 executes: • Land subdivision project analysis • Checks with the other concerned departments, if necessary • Being in order, forwards it to APROV (it continues)

Phase	Description (continuation)
17	APROV analyses and, having all in order, approves the construction plant, and returns it to PARSOLO 3
18	PARSOLO 3 issues a previous Approval Certificate together with the State Departments, for approval by the State (GRAPROHAB/SH – Analysis Group and Housing Projects Approval by the State of São Paulo / Housing Secretariat)
19	The interested party presents: 1. State Approval 2. Arborization project of the roads and green areas 3. Infrastructures and memorial projects, according to clauses 58, 59 and 78 of the Decree 44.667/04: • Drainage • Paving, drives and curbs • Earthwork • Descriptive memorials of the calculation
20	PARSOLO 3 forwards it to DEPAVE and the arborization project of the green areas
21	DEPAVE approves
22	PARSOLO 3 receives the Arborization project approved by DEPAVE and, if the land subdivision project is in order, forwards it for dispatch by the APROV
23	APROV: • Issueing of the Authorization for Land Subvision (valid for 4 years) • Construction Permit issueing
24	CASE does the registering
25	The interested party communicates the begining of the work to PARSOLO 4 (Department of Land Parceling – Division of Technical Acceptance)
26	PARSOLO 4 verifies the infrastructures work (periodic inspections)of acceptance of the land subdivision verifies infrastructures work and performs periodec verifications
27	Interested party: • Performs the Arborization project approved by DEPAVE • Presents the molt invoicing
28	PARSOLO 4 requests the Arborization Execution Certificate – AEA of land parceling acceptance requests dthe urbanism department for the green area, a certificate of fulfillemnt of the demands
29	DEPAVE issues the AEA (it continues)

Phase	Description (continuation)
30	PARSOLO 4 receives the AEA (Arborization Execution Certificate) issued by DEPAVE • Analyses the documents presentes by the interested party (Decree number 080/SEHAB-G/03, and others) • Issues the land subdivision infrastructures of the Work Execution Verification Term – TVEO
31	APROV issues the Certificate of Conclusion of the Constructions
32	PARSOLO 3 issues the Land Subdivision Permit to be entered at the Real Estate Public Recors within 180 days
33	The interested party presents the register of the land subdivision at the Real Estate Public Recors
34	PARSOLO 3 forwards it to CASE for the register and filing of the process
35	CASE registeres and files

Source: São Paulo City Hall. Prepared by: LCA

ANEXO III

List and Destination of Documents to continue the Housing Project in the State of São Paulo - Source: Graprohab Orientation Handbook – State of São Paulo

Nº	Documents	GRAPROHAB	SH	SMA	CETESB	SABESP	EMPLASA	DAEE
1	Request	X	X	X	X	X	X	X
2	Statement	X		X	X	X		
3	Power of Attorney	X	X	X	X	X		X
4	Constitution acts of the legal entity, real estate owner	X						
5	Registration Certificate or Real Estate Transcription	X	X	X				
6	Copy of the IPTU or Tax Register Certificate	X						
7	Map of the localization: original copy of the Metropolitan Maping Sistem Letter - SCM		X	X	X		X	X
8	Copy of the Certificate of the Conformity of the City Hall	X	X	X	X		X	
9	Descriptive and justified material of the enterprise	X	X	X	X		X	
10	Urbanistic Project, on plants stamped by the City Hall	X	X	X	X	X	X	X
11	Altimetric Plan Survey		X	X				
12	Earth Work Project		X	X				
13	Microdraning and Stream Flow Project of the Rainwaters		X	X				X
14	Guidelines Letter from the responsible Department by the				X	X		
15	Water Supply Systems and of the Sewage Collection in the Municipatity				X	X		
16	Project of the System of Sewage Treatment				X	X		
17	Project of the System of Water Treatment				X	X		
18	Project of the System of Sanitary Sewer Collecting and Removal					X		
19	Viability Opinion, given the the DUSM, of the SMA, for enterprises located in Protection Areas to the Water Sources of the Metropolitan Region of SãoPaulo - Solid Waste Statement			X				
20	Expert's report on the charachteristics of the Vegetation at the area			X				
21	Environment Urban Plant			X				
22	Project of Restoration/Revitalising of the Greeen Areas			X				
23	Project of Arborization of the Leisure Systems and of the Public Parks			X				
24	Copy of the Receipt of tax payment, as well as the form called "Solicitação de" "Request of", duely filled out and signed by the owner and by the responsible technician			X	X			
25	Copy of the ARTs payed for each one of the projects, expert's report and technical reports presented		X	X	X	X		X
26	Request that Gives the Authorization for Enterprise Implementation and implementation of the natural schedule							X
27	EVI – Implementation Viability Study							X
28	Request that Gives the Permit for to Drill a Deep Tubular Well							X
29	Preliminar Hydrogeologic Evaluation							X
30	Deep Tubular Well Project							X
31	Request that Authorizes Underground Water Collection							X
32	RAE – Evaluation Report of the Efficiecy on Hydric Resources Usage							X

Nº	**Documents** (continuation)	GRAPROHAB	SH	SMA	CETESB	SABESP	EMPLASA	DAEE
33	Technical Studies for the Implementation of Hydraulic Work							X
34	Technical Study for the Regulation of Existing Hydraulic Work							X
35	Request that Authorizes desilt or bank clening; plant of the area to be desilted; ownership document or usage grant of the expelling areas							X
36	Request for Work Authorization or Bedding Protection Service; plant of the part to be protected; ownership document							X
37	Copy of the payment document referent to the fees of authorization (Regulation DAEE 717/96)							X
38	Copy of the RG and of the CPF (pf) or of the CNPJ (pj) of the entrepreneur							X

Source: Government of the State of São Paulo. Elaboration: LCA

ANNEX IV

Number of permits granted between 2003 and 2008 by year of entry

Year of entry	Year of issueing					
	2003	2004	2005	2006	2007	2008
1991		1	1		1	
1992				1		
1993		1				
1994						
1995						
1996		1			1	
1997	1		2	2		1
1998	3		1		3	
1999	2	1	3	1		2
2000	1	4	3	1		2
2001	5	7	6	10	2	6
2002	19	27	11	10	7	8
2003	91	14	8	4	4	4
2004		183	18	12	6	6
2005			242	45	21	18
2006				224	31	23
2007					297	45
2008						364
Total	122	239	295	310	373	479

Source: IBAMA. Elaboration: LCA.

ANNEX V

LIST OF DOCUMENTS FOR NA AVERAGE PROFILE

BUYER:

(i) Personal documents (RG and CPF) of all parties and spouses;
(ii) Income voucher
(iii) Proof of residence;
(iv) Original and copy of the CTPS (working papers) with register of the present working contract identifies on both sides of the page;
(v) Proof of residence of at least 01 year: Notary's Registered Rent Contract or documents proving place of residence under his/her name with payment made on different month of different years (for FGTS);
(vi) Employees Declaration with Holding (for use of the FGTS for the main occupancy);
(vii) Copy of the last Income Tax and receipt or Annual Declaration of Exemption – DAÍ of the Couple (Obligatory for financings with FGTS resources);
(viii) Negative Declaration of property and real estate destination;
(ix) Authorization for Dealing with the blocked account of the FGTS – MO29067;
(x) Updated Civil Status proof (Certificate) (Validity 60 days);
(xi) Clearance group certificate on Federal Taxes and debts to the Union – Liability group certificate with clearance effects on Federal Taxes and debts to the union on the internal Revenue Website;
(xii) Register file - Form CAIXA MO33005.

VENDOR:

(i) CNPJ of the vendor;
(ii) Identity document and CPF - Cadastro Pessoa Física (Individual Register) issued by the Federal Revenue, of the partners representing the company;
(iii) By-Laws an Minutes of the Election of the Last Board of Directors published in the Official Journal of the Union;
(iv) Simplified Company Certificate issued by the Board of Trade;
(v) Clearance Group Certificate of Federal Tax and Union Debts or Group Liability Certificate with Clearance Effects of Debts on Federal Tax and Union Debts on the Internal Revenue Website.
(vi) Purchase and Sale Option Form Corporate Body– MO29250;

PROPERTY:

(i) Copy of an updated full text certificate of the property's full registry (Validity 30 days);
(ii) Clearance certificate of Building and Territorial Urban Tax debts;
(iii) Encumbrance Certificate;

Disbureaucratization for growth

The costs of inefficiency in bureaucratic processes for housing construction approval.

FUNDAÇÃO GETULIO VARGAS
FGV PROJETOS

ABRAMAT

SUMMARY

TEAM

Project Director: Cesar Cunha Campos

Supervisor: Ricardo Simonsen

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September 2009

Bureaucratic inefficiency X Growth

Presentation

This paper's objective is to dimension the costs of the slowness of bureaucratic inefficiency in housing construction approvals. Can a Country be going through bureaucratic problems, in the present context of the construction chain? This concern may seem unreasonable for a sector that grows 10% a year, as in 2008. The answer is yes, and the correct thing to consider is that the sector grows, despite this difficulty.

Bureaucracy is a word that has double connotation. The strongest is associated to inefficiency and the tradition of notaries that put a break on the dynamics of the productive sectors. But bureaucracy also refers to the state staff responsible for the disciplining, regulating and promoting the key activities of society as a whole. In reference to the housing sector and civil construction, in the last two decades, experience shows that the word bureaucracy is mostly associated to a pejorative connotation.

As seen in specialized studies, the closing of the BNH (Housing National Bank) in 1986, brought about a great loss in the administrative capacity of the Brazilian State, when it comes to housing policies – which has been recovered gradually, only in recent years. In a mild housing policy context, that covers several departments, no improvements to minimize the bureaucratic inefficiencies have occured – on the contrary, the environment was favorable to accumulate and to delay processes and procedures. That situation was, quite often, associated to parallel facilitation schematics.

The present dynamics of housing shows that there has been changes in Brazil, and the entrepreneur's trust in investing seems to be among the most significant ones. But this new level of activities is incompatible with the inefficiency of the public departments. This survey shows what the obstructive and time consuming state bureaucratic machine represents to the companies and to the Brazilian society. To face this problem today means fighting for the productive sustainability of this enthusiastic sector. Those that believe that growth comes independently, regardless of the institutional issues, are wrong. In fact, the institutions are the ones that pave the way, followed by the entrepreneurs and the consumers. Brazilian society has been doing its share, believing in a better future. Now is the time for effective action in order to eliminate the inefficiencies. The Brazilian economy deserves to take smoother and less expensive paths to reach its development.

Firstly, this paper gives estimates on inefficient procedure costs, analyzed in terms of the reduction of investment and of loss of economic efficiency – this has a negative impact on the country's income level. The second part shows a brief summary of the progress of other countries. The third part brings a brief analysis of procedures to face the issue. In the annexes, there are surveys of the time consuming bureaucratic procedures required to gain approval for a real estate undertaking, with São Paulo as an example. At the end, a case study of Joinville is discussed in the addendum.

Institutional progress in the last year – the Law 9.515, of 1997, which instituted the SFI (Real Estate Financing System), and 10.931 that established the

PATRIMÔNIO DE AFETAÇÃO (POOL FOR ENCUMBRANCES) in 2004 – greatly propped up to the housing sector.

A disbureaucratization effort is, undoubtedly a priority in the institutional progress agenda, not only in the construction chain, bur for the entire country.

The time is now, when construction represents a significant part of the National growth. This is the time to free the road to development of bureaucratic bottlenecks – the construction sector and Brazilian society deserve this change.

1. Cost of The Bureaucratic Inefficiency

Characterization of the problem

Perfecting the country's institution is fundamental for organizing sustainable development. According to specialized literature, the lack of competence in ruling the public sector is one of the main factors for restricting economic growth. The State that is not efficient in its actions, lacking institutions that rule the market adequately, damages the development of economic activities, because the investment cost is high and risks are exacerbating. It is a situation that reduces capital revenue and represses investments that would incentivate economic growth. Another channel where low institutional development affects the economic performance of a Country is the loss of productivity. In many situations, state inefficiency overflows its limits and interferes directly in the private sector's performance, causing economic losses associated to low productivity of capital and hand labor.

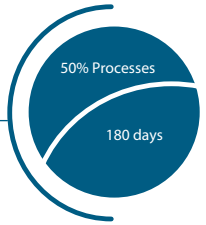
Low ruling capacity has broad consequences, expressed in the high criminality and violence indexes and in the difficulties that governments encounted in implementing public policies when there are no effective instruments to give transparency to the administration and repress corruption. It is equally present in the accumulation of administrative processes, created to regulate the activities, which do not fulfill their role completely for several reasons. Inefficiency is behind the slowness in getting a process approved; this increases investment costs and delays execution, limiting the potential economic growth.

Bureaucratic inefficiency is historically part of the Brazilian citizens' life in such an intense way that very often people do not see its absurd influence and, most of all, realize the costs it inflicts. If time is money one can say that this inefficiency is the most negative part: it adds too much time to actions that could be simplified. FGV's 2007 study for ABRAMAT estimates that legal expenses included in notary and city hall tax costs, represent 2.5% of the construction expenses of a common habitation. However, there is an important part of the costs that was not considered in that survey, because it is hard to measure: it is the actual cost of the numerous certificates and oppressively complex paper work that has to be dealt with, and besides that, there is there is the hourly cost of personnel, the people that have to go to the companies to take care of all the necessary paper work and, finally, the cost of those that are specifically responsible be "on the back" of the bureaucrat. That is the role of the "pain in the neck" facilitator, an institutionalized function in most of the construction companies. It is this person's presence that will assure that the city hall employee does not forget the project or place it at the end of the line. The "pain in the neck" has to personally go through most of the long bureaucratic procedure necessary for the commencement of a construction in the country.

The housing project approval is an activity of the town halls, which is in practice, complying with innumerous regulations, procedures and deadlines. In some city halls regulation is ample but clear, in others it is a real incognito that companies unfold when the requests come in with new requirements. In others, the regulation is being changed: some municipalities have still not approved the new "Plano Diretor" (Master Plan); they have recently concluded the changes and even their employees do not understand which regulation should prevail.

The housing Project approval procedures in São Paulo's municipality are in the annexes of this paper. They deals with cases in which the regulation is reasonably clear, and there is a special site explaining the various steps that have to be taken, as well as the necessary documentation and the regulations to be consulted. It seems simple, but it definitely is not. The difficulties for presenting a project can be noticed just by looking at the site.

The site, in fact, covers all the necessary steps to begin construction, but the initiative was not that successful in speeding up the process. The biggest difficulty is having to proceed with the process through other departments – in which case the "pain in the neck" remains indispensable. There is a statistics for 2002 in the City Hall site, which shows that 50% of the processes take over 180 days. For most of the companies, the picture does not seem to have changed significantly since 2002. In fact, the improvement in the real estate sector, parallel to the unchanged structure, has only made it more difficult for the companies.

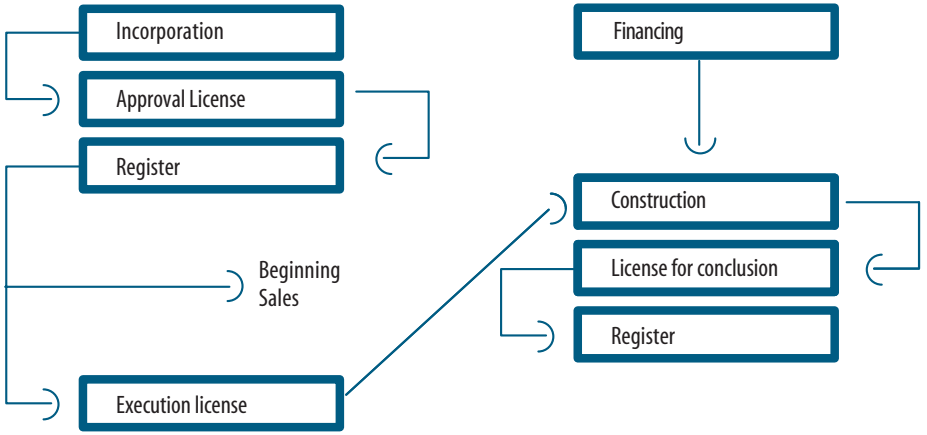


The construction companies mentioned a period of time between 60 to 90 days for the approval of a project. However, a building permit necessary to commence a construction may take more than 120 days. It is possible that the two permits be granted at the same time, if the project does not need the approval of the Depave (Parks and Green Areas Department). The enormous amount of environmental regulation demands is what contributes to the delay, because they generally involve the analysis of the project by state departments.

In the metropolitan and large city regions, such as São Paulo, most cases demand environmental permits for the available areas, either because there is the need to cut down trees or because it is an area where an industry previously existed, which implies in a preliminary decontamination. Those enterprises also need to obtain approval from the Depave, which is linked to the Green and Environment Secretary, an organ of the DEPRN (State Department of Natural Resources Protection), which is part of the Secretary of State for Environment. A recent agreement was signed by the two departments to facilitate procedures in the DEPRN after the Depave approval.

The bureaucratic procedure for a housing construction, besides differing from city to city, also involves aspects referent to documentation and finance operation approval. The following flowchart gives a rough idea of the different stages companies and citizens have to go through (the flowchart of each stage is shown in the annexes).

The bureaucratic periplus



The procedures do not differ significantly for companies and citizens that are undertaking a self managed construction. The fundamental difference is when it is not an incorporation, which eliminates the incorporation register stage.

To measure the costs for a country with so many processes in different realities, an international comparison of the Brazilian situation with worldwide average bureaucratic efficiency is shown further ahead.

Compared perspective

From 1990 to 2006, the GDP per worker in the world grew at an average rate of 2.0% per year. In the same period, nations with high institutional development indexes where among the countries with the greatest growth. Countries with high productivity profits and low bureaucratic slowness do not seem to interfere with investment – such as Ireland, Chile and Singapore. Their GDP average annual growth per worker is above 3.5% with institutional structures that make efficiency possible for the government to implement their policies, in a low corruption environment.

In the other extreme, that is, in the countries that register the lowest GDP expansion rates per worker, one finds nations with extremely bad institutional indexes and productivity progress, which are generally smaller countries: the Congo, Democratic Republic and Zimbabwe in Africa, and Venezuela and Equator in South America. These are countries with a low investment rate and productivity progress.

Economic performance and institutional development indicators of some selected countries

Countries	GDP per worker (annual average growth between 1990 and 2006)	Productivity increase (annual average growth between 1990 and 2006)	Investment rate (GDP % – average between 1990 and 2006)	Bureaucracy Slowness (number of days to open a company)	Corruption Control*	Government Effectiveness*
Singapore	4,0%	0,87%	32,1%	6	2,2	2,2
Chile	3,8%	0,83%	21,6%	27	1,3	1,1
Ireland	3,5%	0,97%	22,0%	19	1,7	1,6
Brazil	0,1%	0,88%	18,9%	152	-0,2	-0,1
Equator	-0,4%	0,71%	24,7%	65	-0,8	-1,1
Venezuela	-1,1%	0,73%	18,0%	141	-1,0	-0,7
Zimbabwe	-3,5%	0,17%	15,5%	96	-1,3	-1,4
Congo	-4,9%	0,17%	6,8%	155	-1,4	-1,7

Source: FGV and World Bank. (*) Scale indexes between -2,5 and +2,5; the greater the value the better is the institution.

Brazil is an intermediary case. It grew less than the world average, but, at least GDP exceeded the work force growth. The investment rate is low and the control indicators on corruption, government effectiveness and the slowness of bureaucracy are bad – specially this last item.

In fact, the world institutional development and bureaucracy indicators raise at least three important issues that are necessary for understanding their role in the economic growth.

- How does low institutional development and inefficient bureaucracy restrain investment in a country?
- Can we be sure that economic productivity is affected by the degree of institutional development and by the efficiency of bureaucracy?
- What is the net effect that disbureaucratization can have on economic growth?

The data in the table above is suggestive, but merely illustrative. To work on the answers to these questions, in the case of Brazil, an analysis of the economic performance indicators of a hundred economies from 2003 to 2006, and their statistic relation to the development of institutions and the efficiency of bureaucracy was carried out, as we shall see ahead.

Bureaucracy and growth

The economic growth of a country stems from investments, opening new job opportunities and an increase in productivity. Investment and productive capacity expansion generates jobs and income in a direct way and makes the economy grow, because it demands machinery and equipment production and contracts companies to construct buildings and infrastructure. The newly installed capacity opens job opportunities, which generates income for entrepreneurs and workers. Thus, the investment that occurs now generates working positions in the future and sustains new economic activities.

An economy's capital inventory variation from one year to another is the result between the realized investment in the period and the depreciation. The investment is construction or building renovation and infrastructure and the acquisition and maintenance of machinery, equipment, tools and installations. The depreciation is the decrease in previously accumulated capital inventory due to its wear and tear. Therefore, investment adds new capital to the old one, while depreciation removes a part of that capital inventory.

The third source of economic growth is capital productivity and the increase in the workforce. The productivity expansion allows for the expansion of economic activities based on the already existing economic resources. Companies need to invest in research and development and modernizing managerial methods. In general, this is a means of expanding activities that costs less than capital investment, dismissing disbursements of large finance amounts.

The level of institutional development, as well as a greater or smaller bureaucratic efficiency can affect the economic performance. Especially the bureaucratic burden imposed on the opening of new economic activities and in the acquisition of capital goods, which can scare away investors if it makes investments more expensive, thereby reflecting on economic growth. The pressing demand of bureaucratic procedures also affects productivity, which forces countries with lower institutional efficiency to use more capital and man power than needed to achieve a determined level of income. This pressing demand constitutes a waste of resources, which could be of better use if the society was more efficient in controlling its activities.

The international statistic analysis allows for a detailed idea of the situation for investigating the validity of the above hypothesis in the international and Brazilian context.

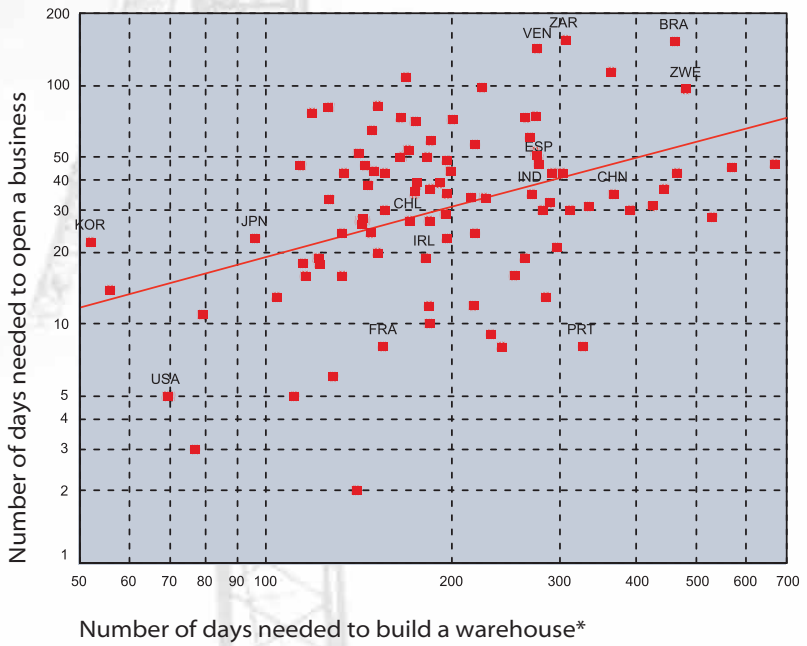
Analysis procedures

The analysis of the statistics supplies a bruising answer to the results of institutional development in productivity and investment. The survey worked with data from 98 countries for the period of 2003 to 2006, taking into consideration 368 available observations. The information was obtained in two databases: Penn World Tables 6.1 (PWT) and the World Development Indicators 2007 (WDI). Information on world productivity calculated by FGV was also applied. The period of analysis was limited due to the availability of information on institutional development and bureaucracy in the WDI

The database covers information on the GDP, investment, capital inventory, international capital movements, work force and the productivity evolution of those economies. The public sector effectiveness index is used as indicator of the institutional development.

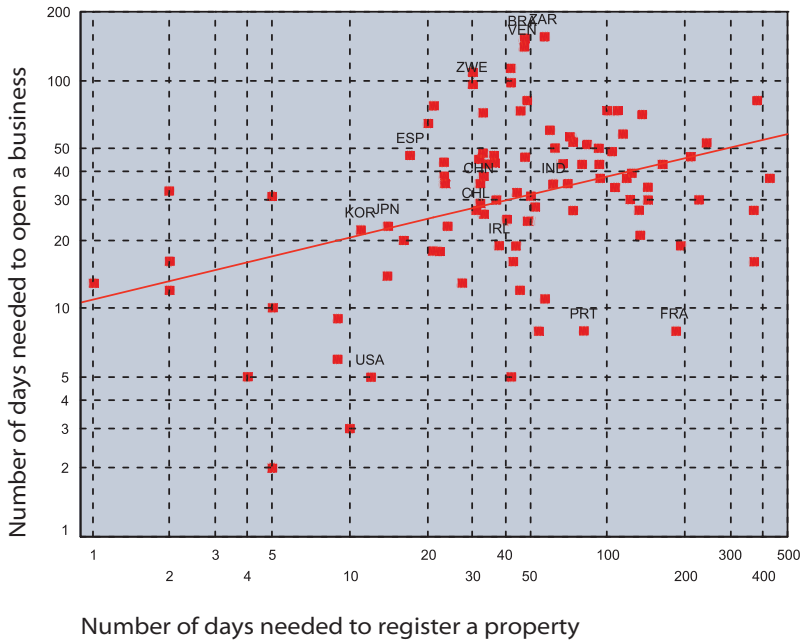
This index, produced by the World Bank, measures the capacity that the public power of a country has to implement its policies. That is, the index evaluates the efficiency in government to execute adopted policies, independently from the nature of said policies. Set in an interval between -2.5 and 2.5, the higher the value obtained by a country, higher the effectiveness of the government. The bureaucracy level is measured by the number of days necessary to open a new company. That variable was chosen because it is highly correlated with the number of days for the construction (including project and approval) of a commercial warehouse and with the number of days necessary to register a property, two important dimensions of the problem in the institutional field. The necessary number of days was chosen based on the time it takes to establish a new company with a variable proxy of the bureaucratic effects on housing procedures, since there is more information available for that indicator, which allows for the evaluation of the bureaucracy slowness evolution in different countries and if that evolution affected their income levels and economic growth.

Bureaucracy slowness indicators, 2006



Source: World Bank. (*) Including the days spent with bureaucracy. Abbreviations: BRA=Brazil, CHL=Chile, CHN=China, ESP=Spain, FRA=France, IND=India, IRL=Ireland, JPN=Japan, KOR=South Correa, VEN=Venezuela, ZAR=Congo (ex-Zaire), ZWE=Zimbabwe.

Bureaucracy slowness indicators, 2006



Source: World Bank. (*) Including the days spent with bureaucracy. Abbreviations: BRA=Brazil, CHL=Chile, CHN=China, ESP=Spain, FRA=France, IND=India, IRL=Ireland, JPN=Japan, KOR=South Correa, VEN=Venezuela, ZAR=Congo (ex-Zaire), ZWE=Zimbabwe.

The economic literature supplies a series of variables to explain the economic performance of the countries and their growth. The structuring mathematical references of that variable are called: (i) equation of product determination; and (ii) equation of the conditioned conversion. GDP variables are used per worker and time variation as growth indicators, for two reasons: first, because the production and revenue of a country are related in a more direct way with the human production effort than with the population – there are countries with a high number of children and elderly people, which do not participate in wealth generation, yet they are consumers. Second, because the GDP per worker also expresses the direct form of a productive action, that is, the added value per worker. Consequently, its evolution in time contains part of the economic productivity increase.

This study follows the more recent statistic forms in the economic growth area.

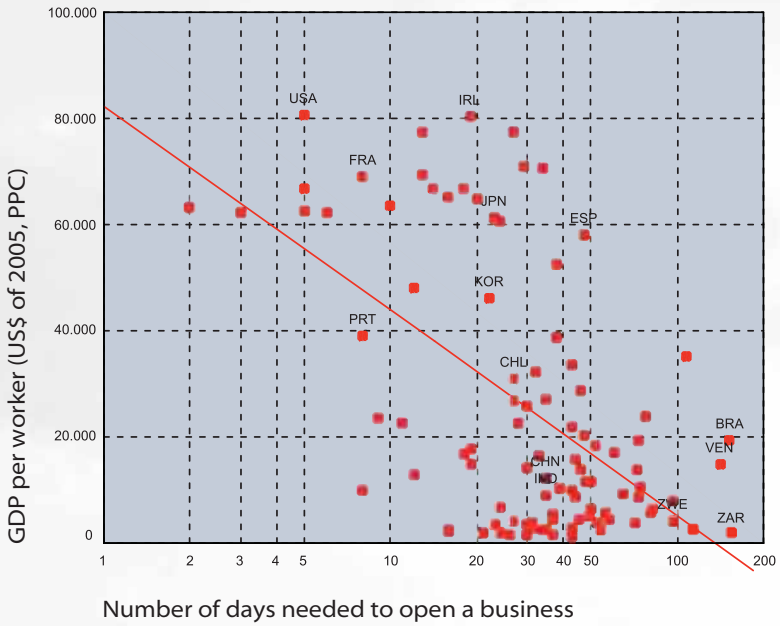
According to that literature, a country's GDP per worker is determined by the following variables:

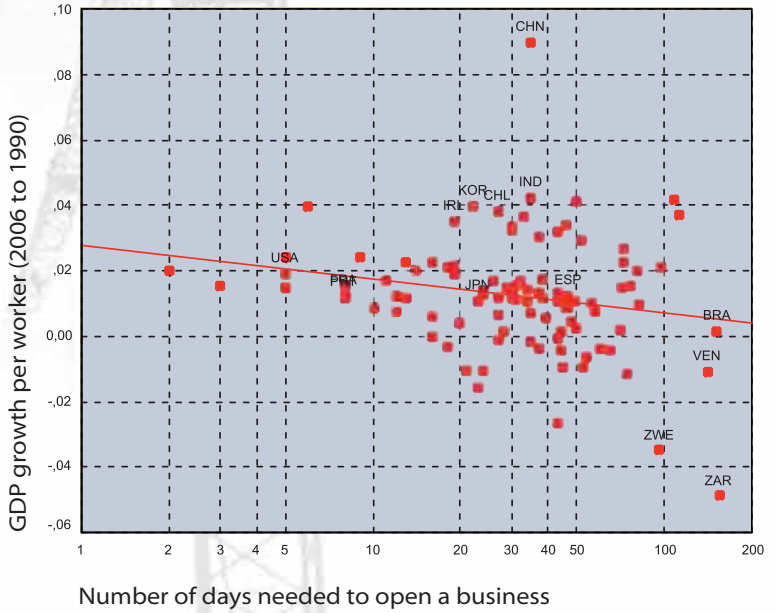
- Current investment rate;
- Break-even investment rate, which is the sum of other three components (depreciation, working force growth and productivity development); and
- A set of variables that influence its productivity level.

In the GDP growth equation per worker, besides the previous variables, the GDP level per worker of the previous year was applied. The same variables were used to explain the investment level of a country and, thus, estimate the impact of the slowness of bureaucracy on forming capital in Brazil.

Among the control variables that influence the productivity level of the countries, the government effectiveness index was applied, and the grade of bureaucratic slowness, represented by the number of days it takes to open a company. That variable is shown as having a strong correlation with the GDP level per worker of the 98 countries sampled, although this correlation isn't so high when one considers the economic growth rate. Besides those variables, two other variables were applied: the technologic development level of each country and the technologic progress rate, both estimated by FGV.

Economic growth, income and bureaucracy slowness, 2006





Source: World Bank and FGV. Abbreviations: BRA=Brazil, CHL=Chile, CHN=China, ESP=Spain, FRA=France, IND=India, IRL=Ireland, JPN=Japan, KOR=South Chorea, VEN=Venezuela, ZAR=Congo (ex-Zaire), ZWE=Zimbabwe.

The statistic techniques applied are called panel analysis. More specifically, the following estimation methods were applied: fixed effect model, random effect models and Arellano-Bond model (1991). The panel techniques have the capacity to correct eventual errors caused by the omission of other growth determining variables and those caused by measuring errors.

Plus, the Arellano-Bond method, applied only on the growth equation calculus, allows the correction of eventual endogeneity problems in the estimates of those models. The endogeneity can occur in this type of investigation because it is possible that the economic growth bring about incentives for increasing investments. In this situation, there would be a circularity component in the reasoning.

Income, growth and investment

The analysis shows that countries with a higher institutional development grade also have higher GDP levels per worker. On the other hand, considering other interfering factors on the nation's development process, those where the governments are more effective in implementing their policies and where the bureaucracies are not as slow, have a higher income level.

Both techniques (fixed effects and random effects) come to similar results. As indicated by the economic theory and confirmed by empiric evidences seen in other studies, the GDP per worker is affected positively by the present investment rate and negatively by the break-even investment rate. The technological development and the technical progress have a positive effect on the income level. The institutional development grade has a positive effect on income – the economies with less bureaucratic slowness have a higher GDP per worker.

Those indications confirm the main conclusions of the economic growth theory. In reference to bureaucratic slowness, results are quite expressive in absolute terms. Between two countries, where one has a bureaucracy half as slow when compared to the other, the one with the faster bureaucracy has a 5.7% higher GDP. In the case of Brazil, which is one of the sample countries with higher bureaucracy slowness, the effect is even more expressive. Therefore:

If the Brazilian bureaucratic slowness was similar to the world average, economic efficiency would be higher and the GDP per worker would be 8.7% higher than it is now. This is equivalent to saying that the social cost of bureaucracy in 2007 corresponds to R$ 223 billions. This represents an amount of resources greater than the one generated by all of Brazil's farming sector.

However, the growth equation estimates obtained through the Arellano-Bond technique, indicate that the bureaucratic slowness occurs exclusively in the productivity level and does not interfere in its growth rhythm. In other words, progress in bureaucratic efficiency put economy on a higher productivity level; this does not necessarily mean a subsequent increase in the growth rate of that indicator. To eliminate bureaucratic hindrances is to climb the steps of production.

As in the analysis for evaluating the impact of bureaucratic slowness on the revenue value level, the effect of a greater institutional and bureaucratic development was estimated on the investment of the sampled countries. Again the results were expressive. The estimates indicate that:

Each negative 10 percent in bureaucratic slowness calls for an extra 0.8 percentage investment.

There is an example based on data from Brazil and the world where this is illustrated. In 2006, as a result of bureaucratic slowness, the necessary time to open a business in Brazil was 112 days above the world average. Considering the above effect, one estimates that, if the Brazilian bureaucratic slowness were equal to the average of other countries, investment would be 1.6% above the current one.

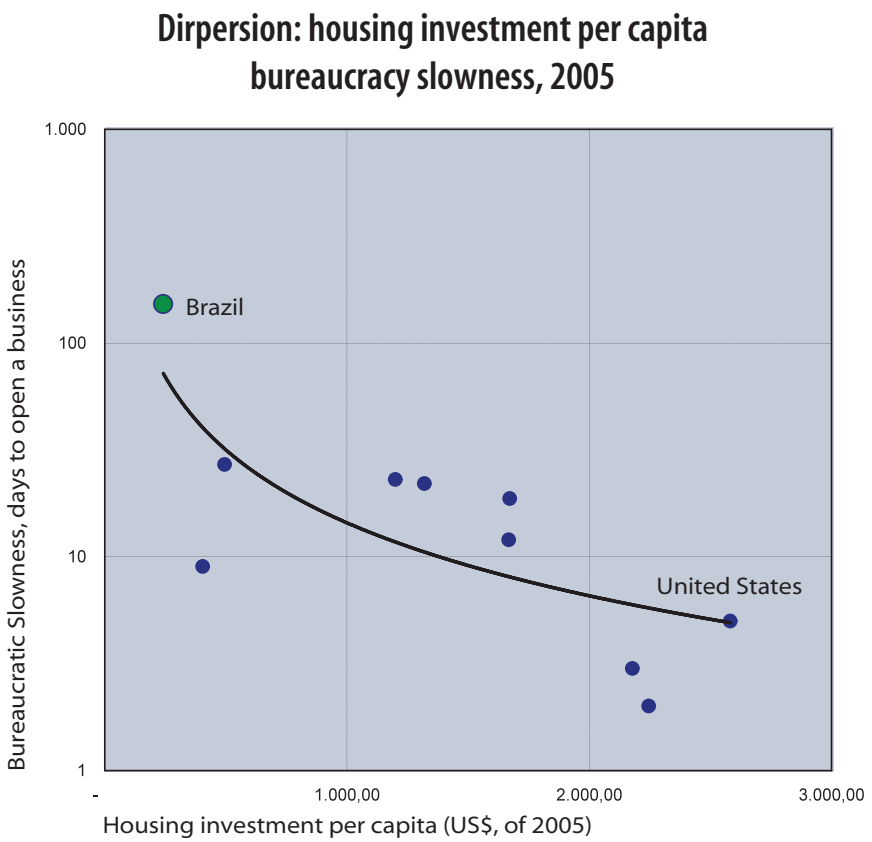
That is equivalent to saying that due to bureaucratic inefficiency, R$ 7.2 billions are not invested in the country only for the housing sector, that is, 6.9% of all the Country's housing investments for 2007.

In fact, a direct evaluation of the housing investments, comparing fewer country samples, shows a strong negative relation between expenses per capita with housing and bureaucratic slowness, confirming the idea that inefficiency jeopardizes the investment levels.

Housing investment indicators and bureaucratic slowness, 2005

Country	Housing investment per capita in US$*, 2005	Bureaucracy Slowness (number of days to open a company)
United States	2.582,51	5
Australia	2.246,51	2
Canada	2.178,24	3
European Union	1.672,75	16
Ireland	5.388,14	19
Portugal	2.283,61	28
Greece	2.133,78	38
Norway	5.390,72	13
Island	3.608,19	5
Spain	2.406,00	47
Netherlands	2.072,00	10
Austria	1.443,51	29
Germany	1.537,50	24
Great Britain	1.315,60	18
France	1.396,13	8
Denmark	1.671,04	5
Italy	1.236,88	13
Finland	1.810,58	14
Sweden	922,07	16
New Zeeland	1.668,18	12
South Chorea	1.320,24	22
Japan	1.199,61	23
Mexico	495,24	27
Turkey	405,09	9
Brazil	241,67	152

Fonte: OECD e Banco Mundial.



Critical appreciation of the results

The results shown in this section demonstrate the dimension of the losses to the country's economy caused by the inefficiency of the bureaucratic structure. In fact, it is outrageous to see that Brazil has bureaucratic efficiency indicators similar to countries like Zimbabwe and Venezuela, as seen in the chart. But the country has, in contrast, a modern, diversified and dynamic economy. The great economic growth challenges were met despite the high social cost of its bureaucracy.

It is important to point out that the criteria used to measure bureaucratic inefficiency was that of the World Bank. Despite any eventual questioning of the qualitative aspects and heterogeneous reality of the indicators, the results place Brazil in a rather unfavorable situation. The ambition to determine the exact amount of social losses does not point out the general dimension of the problem, which should not be underestimated.

2. World Experience Lessons

Global level vision

It seems to be a consensus that the bureaucratic inefficiency is the consequence of a detour that originates from a correct initiative, which initially regulates the undertaking's activity to guarantee collective interests. That regulation is understood as necessary and the American Real Estate crisis is an example of that.

Generally, bureaucracy is seen as a cost imposed by regulatory legislation. Undoubtedly, the target of regulation is to protect social interests, but the problem occurs when the cost-benefit relation is no longer positive. Social agents become more and more aware that Laws generate private costs and they are questioning the need and the dimension of these costs. In such case, the reduction of bureaucracy should be seen as leverage for generating efficiency and productivity improvements, capable of eliminating unnecessary costs in the interaction between companies, public departments and regulators.

In June 2008, the European Parliament promoted a symposium entirely dedicated to this issue. The motto in English is "cutting the red tape", that is why "red tape" has become the symbol of time consuming bureaucratic procedures, because red tape is the color of the ribbon used in typing the documents in bureaucratic departments. Some of the most important conclusions are for guiding initiatives that aim at bureaucratic efficiency.

- Firstly, bureaucracy was born as a consequence of the complexity of entrepreneurial relationships. In that sense, it can be seen as the negative consequence of growth. In a city like Sao Paulo, for instance, it is normal to need much more procedures to obtain the approval of a civil construction project than in smaller cities. Therefore, the comparison with international experiences should be carefully studied, because some ideas do not necessarily produce the same good results in other places. Specific situations demand specific solutions, identified locally.
- A second aspect is the great difference between a simple legislation and its effective implementation. The combat against bureaucratic slowness should be dealt with in two ways: the legal requirements and the actual progress of the procedures. A country can have a reduced number of "steps" to implement a construction due to a legislation that has few demands. But what is the real time spent by the companies to go through each "step"? The symposium concluded that the optimization of processes should not be restricted only to small companies because it can also work for the large ones.
- A third point of the symposium refers to interfaces between levels of government, an important problem in the region due to the increasing number of countries in the European Union. This can be a relevant aspect in specific aspects in the case of the Brazilian civil construction. That is because the obtention of an environmental license for some constructions does not always depend exclusively on municipal departments. Harmonizing procedures is the main objective to be pursued for combating the problem.
- Eventually, the symposium makes it clear that measuring the costs of bureaucracy is very important. Costs were not a concern in the past simply because they were not measured. Presently it is easier to impress the agents with the excesses of bureaucracy since their costs can be evaluated with greater precision. Combating bureaucracy also involves a change of the agents involved.

Actions throughout the world

Harmonization and integration are words that synthesize the European goal. The European Parliament debate resulted in a list of actions to reduce bureaucratic costs and one of the documents focused specifically on the civil construction chain. It is a proposal for a revision of the legislation dedicated to the chain. The main lesson refers to the harmonization of procedures. Europeans insist that the certification norms have to be very homogeneous. For this reason, a company certified in one of the member countries could act in the entire region without bureaucratic bottlenecks. The lesson for Brazil is clear: if the legal requirements for Project approval were more homogenous, between the States and Municipalities, the constructors could consume less time in providing the necessary documents to commence an undertaking.

The benefits of harmonization are clear, they allow for greater levels of regional integration in Europe and in Brazil, permitting the constructors to accelerate the operation in different cities.

In 2007, an initiative called "The Future of Building Control" was initiated in the United Kingdom. The objective was to define the general rules of the British construction renovation system based on observations, analysis and suggestions of the economic agents involved in the process. One of the most interesting conclusions is the recognition that civil construction is an activity that has become more and more complex in the last decades. Years ago, the main objective in the regulation of the segment was to guarantee that the population would have access to secure and healthy constructions. More recently, it is more important to make places more accessible for people with special needs.

Presently, environmental aspects for incorporations, as well as the use of materials or resources such as water and energy are also the target of specific norms. But this increasing complexity tends to generate greater costs with a potentially more time consuming bureaucracy. An issue covered by the study was: what do the economic agents that face those regulatory norms have to say about it? One of the things that came up more clearly was that bureaucracy is not the only problem in civil construction. It is a set of norms, departments, documents and demands that are not quite related. This generates conflicts and duplicities within the bureaucracy itself and difficults any frontal attack against bureaucratic inefficiencies. Therefore, even though these agents are also bureaucracy "users", they find themselves in an uneven conflict, facing a multi faced enemy. The proposed solution is to reduce the number of regulatory departments involved. For current usage in Brazil, it can be interpreted as a suggestion of how to create local agencies, responsible for the greatest number of bureaucratic procedures required to accomplish the work. Additionally, an idea would be to create an act that unifies, as much as possible, the legal demands that rule civil construction.

Another relevant experience comes from Canada. Between 2000 and 2005, several Canadian regions developed programs to reduce bureaucracy. A region that stands out is Saint John, in the New Brunswick province. A bureaucratic reduction was implemented to reverse the situation; it was called "smart regulation", or intelligent regulation. One of the best ideas of the local initiative is also one of the simplest. When a new bureaucratic norm is about to be created, it should satisfy by itself some of the intelligent criteria. Instead of pointing out only the social benefits of the norm, the intelligent regulation principle demands that it be easy to comply with. In this way, each new bureaucratic demand should flourish with the necessary means and, additionally allow for a clear identification of the generated costs for the entrepreneurial activity. In the case of duplicity in requirements, excessive costs, discouragement to innovation or difficulties in complying, the norm must be reevaluated before being put into practice. That is certainly a simple guideline that does not exist in the Brazilian civil construction. Norms are created and overlap making it impossible to easily evaluate the impacts of transaction costs for the companies.

In Latin America, measures were taken in Peru to reduce bureaucracy locally. An important reformulation started in 2005 in Lima, with the objective to

modernize city zoning and, therefore, simplify the rules for companies to obtain building permits. The necessary procedures were divided in categories, according to the complexity of the company's activities and its urban impact. And this is where we see the interface with civil construction. There were significant profits for environmental low impact work through reduction of requirements, such as the number of documents, controls and visits to municipality departments. The result accelerated license processes and reduced the number of days for the liberation of the construction or entrepreneurial real estate remodeling.

In 2006, first year of the new system, the number of licenses for opening companies in Lima doubled in comparison to the period between 2002 and 2005. Clear lessons can be learned from this initiative. Different criteria can and should be applied to different constructions. The number of necessary steps to obtain permits for commencing a construction should be in accordance with the real need to mobilize public and regulatory departments.

Something similar was seen in the Australian State of Victoria. Several small size constructions were developed without previous licenses, although they continue to be subject to the control of the authorities that rule civil constructions. The practice of exempting previous licenses but maintaining continuous control is called a regulation "risk-based approach" in the United Kingdom. When the risk is low there is no need to create bureaucratic bottlenecks.

Common lessons

It is possible to schematically summarize some of the main trends in the picture bellow:

Four main lines of action in the world

Main lessons	Actions	Advantages
Harmonization	Standardize the necessary procedures to obtain the liberation of a work	Scale gains in reference to bureaucracy. Documents, licenses and certifications can be used in wide geographic areas
Rules created simultaneous with the procedures to comply with them	Every new bureaucratic rule should be created together with the necessary procedures to comply with them	Rules with complex, difficult processes to comply with or that generate redundant procedures are easily identified and can be questioned before being put into practice
Reduction in the number of norms and regulatory departments	Creating agencies and laws that unify, whenever possible, all the norms and procedures necessary to obtain licenses to take the work ahead	Bureaucracy no longer is a web of norms, rules and procedures, making easier to deal with and even the process criticism and the perfectioning
Differentiated treatment towards smaller works	Allow performing smaller works, submitting them only to a latter inspection	Adopting the "risk-based approach", accelerating smaller risk work without letting go the concern towards user safety

Source: World Bank.

In all the regions of the world there is an aversion to bureaucracy slowness. It is true that life in large cities is complex and that regulation is necessary, especially in a segment such as civil construction. But bureaucracy when it is time consuming and unnecessarily expensive loses its main objective: to make collective interest worthwhile, generating well-being, safety and a healthier life, all aspects linked to housing. The study showed that in all the countries and regions analyzed, the residents of large cities should be considered as bureaucracy clients. Processes need to be reformulated.

That is why there were two lines of action identified in almost all the cases. First, it is always necessary to listen to the agents involved. There must be permanent open discussion channels for bureaucratic evaluation. There is a site in the United Kingdom that works with a forum for continuous regulatory improvement at all levels (www.betterregulation.gov.uk). Continuous improvements are always better than great reformulations applied at large time intervals. These type of reformulations are always more expensive and more polemic.

Lastly, it is also a consensus that, even with continuous improvement efforts, norms and processes should periodically undergo general evaluations. Regulatory changes often demand new laws. When there is a specific date to review the norms, mobilization is more organized and more effective and the changes suggested tend to be more objective.

3. For a National Agenda

The time is when

First of all, the necessary bureaucratic inefficiency has to be inserted effectively into the government agendas. As we have seen in this study, a housing project involves the municipal sphere, which is ultimately responsible for the success of the undertaking; the state sphere for environmental issues; and the federal one with respect to interacting with the Federal Government Savings Bank. Asides from the three levels of government, there is the direct interest of the Notary offices that interferes in the process. We need to establish a virtuous circle, with the correct mobilization of the agents. Some aspects are fundamental for the creation of a positive agenda:

1. A Rationalization of the process at the municipal level, with an intensive application of IT as a means of obtaining greater velocity and transparency in the proceedings;
2. An integration of the bureaucracies of the three government spheres around a sole project, which would be consolidated in the municipality – thereby eliminating duplicities and facilitating procedures;
3. The creation of bureaucratic procedure evaluation committees composed of members of government and private initiative:
4. Deploy efforts for the creation of a sole property registration, which would reduce the number of operations for obtaining certificates.
5. An adequate inspection apparatus, which will need to act swiftly and transparently.

In contrast to what common sense suggests, the path towards efficiency is not only about cuts. The optimization process necessarily calls for the elimination of steps and duplicities, which in turn depends on the enabling of bureaucracy. In other words, society will always cope with the costs of fiscalization, the question is if they are within a reasonable limit and, above all, if the service rendered is efficient.

Generally a slow bureaucracy fiscalizes badly. There is a double inefficiency that needs to be mastered. Advances in bureaucratic perfectioning, as seen in the first part of this study, represent a jump forward for the economic activity. Brazil, its population, its companies have done their homework and are worthy of this breakthrough.

Annex I – The Trajectory of the Housing Project Approval

This annex's objective is to enumerate, step by step, the necessary procedures for the approval of a housing undertaking in the city of São Paulo, contemplating its diverse stages.

Station 1: approval of the project by City Hall

The Website - Plans on Line - (http://plantasonline.prefeitura.sp.gov.br) was an idea of City Hall and various private institutions involved in construction for finding a solution to the critical situation they faced when having to approve projects. Thus, in 2001, Plans on Line was created, congregating all the legislation concerning the licensing of works and buildings, in order to obtain a swifter approval of plans. City Hall was responsible for implanting actions to computerize the plan analysis processes and the entities where in charge of collecting funds to guarantee the feasibility of the actions. One should point out that, in many situations, the project has to also go through the approval of several other State institutions. In fact, the site contemplates all the necessary steps for commencing the work, but the initiative was not successful with respect to procedural rapidity. The biggest difficulty resides in having to formalize the process in various agencies.

In order to simplify all the peregrination of the project at City Hall, one can say that the usual procedure is:

I) The project enters the protocol of the Secretary of Housing. Time of permanence: an average of one week.

II) The project arrives at the technical advisory service, which can generate a "notice to be issued", that is, a notice for an additional requirement, or to go to the Sectorial Registry Department (Case). Time of permanence: about one week with the help of a "chato", a person contracted by the interested party to follow the process day-by-day.

III) The Case generates the Technical Data Report (BDT). This document contains important information related to the project, including special occurrences. In other words, if the undertaking is subject to a public plan for widening a roadway or the construction of a public work. In this case, one needs to consult the Proj/Siurb and Desap/SNJ, to know exactly where the plan affects the property. If there is any intervention that implies in the cut or removal of trees, the project will need a license from the Depave/SMMA. If the property is located within 300m from a listed or preserved property, one has to previously approve the project in the Condephaat and/or Conpresp, state and municipal agencies responsible for the preservation of properties, and present the plans stamped with an expert opinion. When the project has more than 80 parking spaces, its approval depends on presenting a Guideline Certificate issued by the Municipal Transport Secretary (SMT), which can demand the execution of works and services at the expenses of the undertaking's owner. One should point out that some areas of the city are subject to special guidelines that allow the alteration of the established urban parameters defined in the land parceling, occupancy and use legislation. Time of permanence: one week.

IV) Approval – The Housing Secretary and Urban Development Department gives the final official expert opinion.

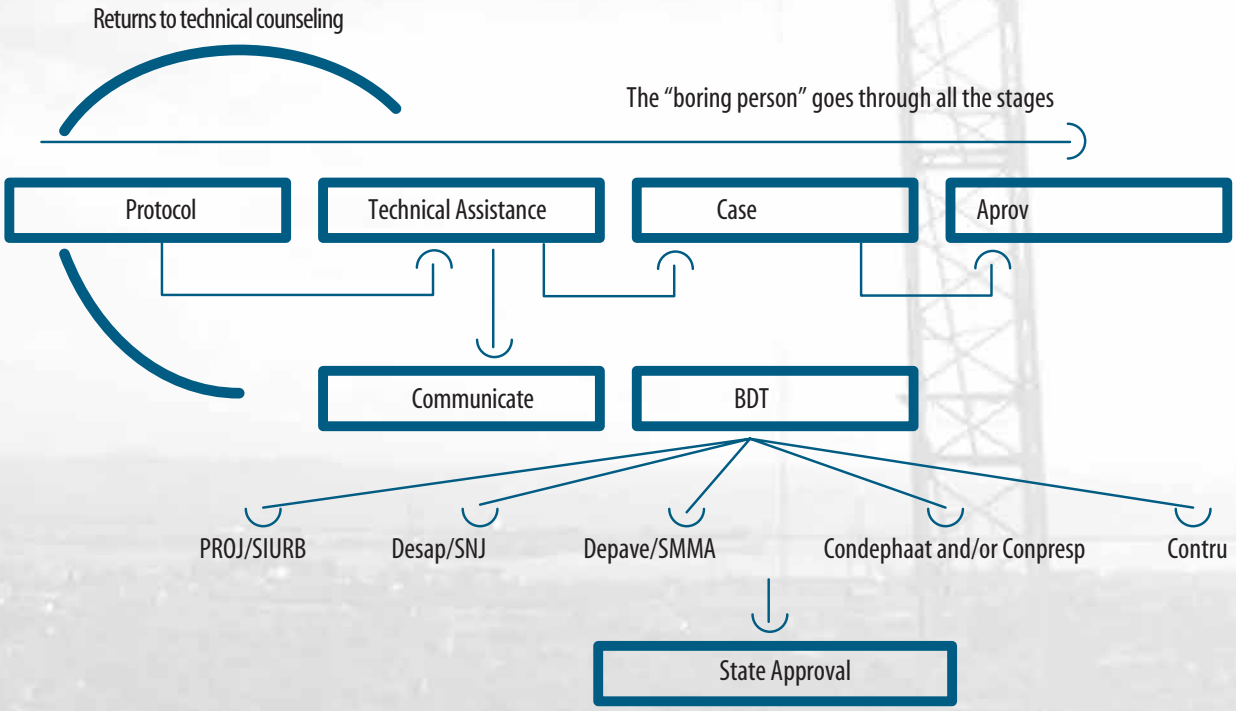
Time of Permanence: varies in accordance with the undertaking's situation.

It is important to observe that practically all the companies have technical advisors who try to anticipate eventual measures for obtaining the approval of other agencies such as the Contru, Condephaat and/or Conpresp, Parsolo, Depave etc. Thus, the approval of these institutions is obtained before going to the Case or getting the execution license. The time needed to obtain them varies in accordance with the situation of the undertaking.

The approval license will allow the registration of the incorporation and the sale of the units. The execution license, especially for real estate undertakings, depends on obtaining certificates required by the BDT and DEPRN. In some cases other State approvals are necessary. The execution license can take over 120 days.

These delays rank São Paulo's City Hall among the municipalities where the period for permission to start a construction is the longest. In some municipalities of the State's inland region the process can take one month.

City Hall approval



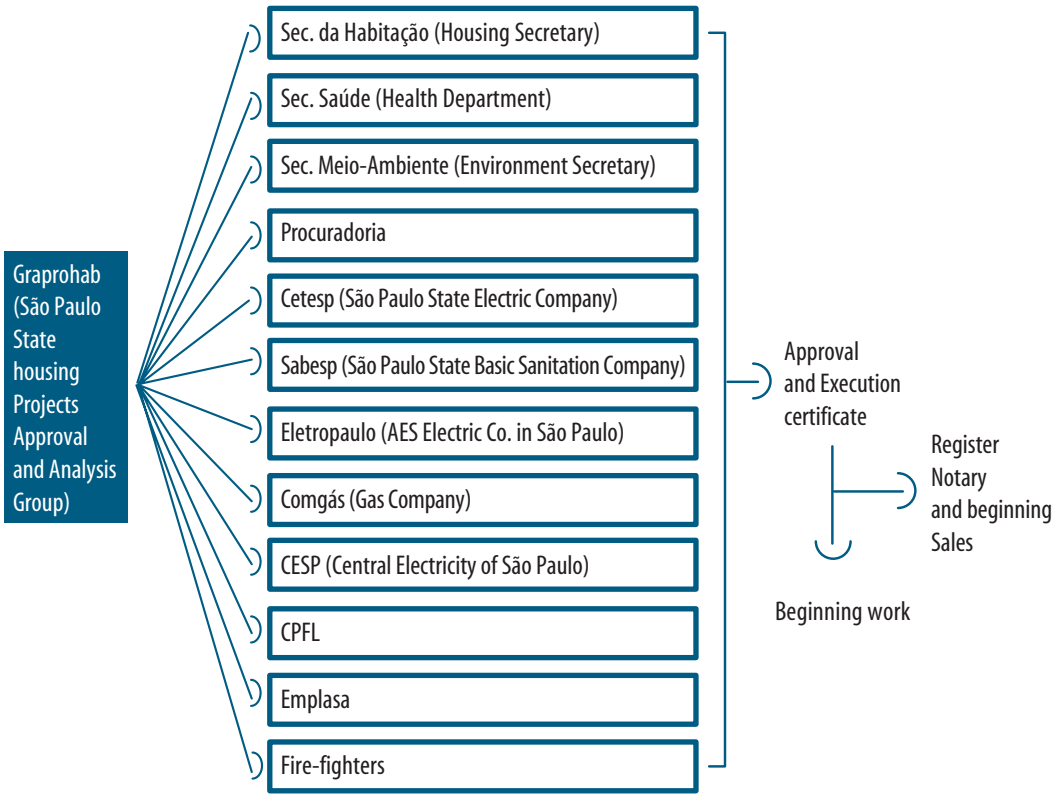
Station 2: State approval of the project

In many cases, the approval of the project also involves the approval of some State agencies. In order to centralize and facilitate the flow of administrative state approval procedures involving the implantation of land parceling undertakings for residential purposes, The Graprohab (Group for Analysis of Housing Projects) was created in 2007, it is composed of 12 regular members, and representatives from each of the following organs or State companies:

- Secretary of Housing
- Secretary of Health
- Secretary of Environment
- State General Attorney's Office
- Cetesb
- Sabesp
- Eletropaulo
- Comgás
- Cesp
- CPFL
- Emplasa
- Fire Brigade

Graprohab has a handbook that shows the necessary steps for the State approval of the project and establishes maximum delays for the agencies, company collegiate members and the collegiate itself to give their final expert opinion. The biggest advantage of the Plan on Line is centralization, which has allowed for the Graprohab to be swifter in the approval of projects. However, companies only go to the Graprohab if the project involves more than one State agency.

State Approval

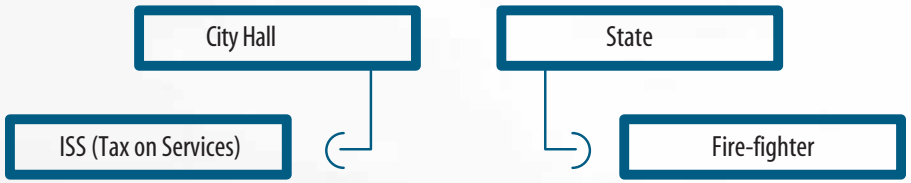


Station 3: conclusion certificate (Certificate of occupancy)

When the construction is ready, a new round of bureaucracy begins to obtain the Certificate of Occupancy, which can take from 30 to 60 days, and without which one can not get the final registration. Here, among several other documents, you need the following: i) the ISS (service tax) payment slip: which is paradoxically the most difficult to obtain, even companies that are totally legalized are not able to get it immediately, it takes around 20 days ; and ii) The Fire Brigade Inspection Report Certificate: about 10 days.

One should point out that some chnges in the construction that modify the initial approved project commonly occur during the execution. In such cases, these changes have to be submitted to City Hall. The final license will not be granted without this approval.

Conclusion Certificate or Certificate of Occupancy



Station 4: registration

In order to register the concluded undertaking, the Notary Office will demand the property's Certificate of Occupancy and Clearance Certificate of Debts (CND), which will only be handed out after the verification of the Contributor's Fiscal regularity with Social Security. If the INSS (National Institute of Social Security) is not on strike or carrying through standard operations, this should take approximately 45 days.

One should remember that for incorporations to negotiate independent units they have to register the corporation. This is a determination of the Federal Law 4.591/64 that establishes rules for jointly-owned building properties and real estate incorporations. The law refers to the ABTN (Brazilian Technical Standards Association) regulation, currently 12.721:06, which, among other things, establishes the methodology for the calculation of unitary costs in construction (CUB). The incorporation can only start its sales after the registration.

Construction registration

Station 5: purchase of the property

To become the effective owner of a property, it is not enough that an individual settles his debt with the seller and obtain the deed of property. Very few people know that a deed does not guarantee the right to property. Only the registration effectively determines the formal transfer of the property. But the idea of facing bureaucracy and the legalization costs of the purchase and sale operation scares off most people that often decide to "put it off for another day", which can bring about many problems, including the loss of the property that was purchased and paid for. Basically, the registration itself is quite simple. The difficulty resides in the documentation required to obtain the registration in the case of a new property, or of documents necessary to guarantee the transaction, that can call for a peregrination to several other notary offices.

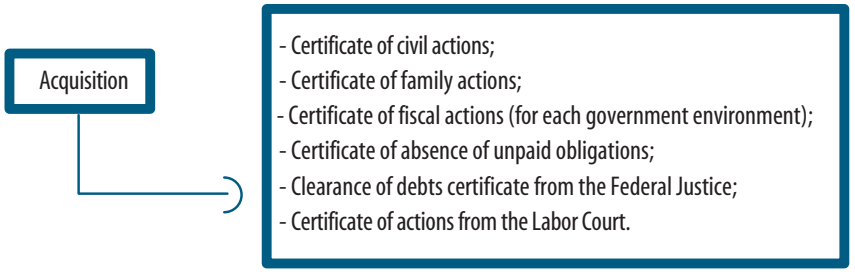
For registering the transfer of the purchase of a property that already exists, the costs and actions are not the same in every part of the country and each State has its own rules, based on the State's legislation. Some States are considered more difficult than others, like Rio, Paraná and the Federal District. However, they all call for similar documents to guarantee the transaction, which are:

- Certificate of civil actions;
- Certificate of family actions;
- Certificate of fiscal actions (for each government environment);
- Certificate of absence of unpaid obligations;
- Clearance of debts certificate from the Federal Justice;
- Certificate of actions from the Labor Court.

One should take note that each certificate is in a different notary office. Even though these documents do not have to be presented to the Notary, the purchaser must certify himself, for example, that there is no unsettled debt that could eventually transform itself into and additional burden. These certificates are usually obtained by means of a forwarding agent and can take from 10 to 30 days depending on the State. An important aspect of the withdrawal of certificates is that they all have specific validity dates, which means that they should all be obtained at the same time.

All these processes could be greatly simplified if it was possible to concentrate all legal informations or actions where the property was given as guarantee in the real estate registration office where the property is registered. In other words, the consultation would be done only in one place, thereby reducing the costs of transactions, time and, above all, offering more guarantees to the transaction. There is a project of law elaborated by various institutions in the sector, which has already been submitted to government, but the project has not yet gotten to Congress.

Real estate registration



Station 6: Financing

Few people or companies are able to purchase/build only with their savings or working capital. This means that one needs to go to a financial agent to obtain funds. This used to be much more difficult than it is today. However, the biggest difficulty was associated to the low level of available credit. Since 2004, funds for real estate financing have grown extraordinarily. Asides from the expansion in volume, there has been an improvement in financing conditions and contracting. It is therefore easier for companies and individuals to obtain financing. All the financial institutions have forms available on their sites that can be filled out and forwarded electronically. If one has the documents at hand, approval is very fast. If not, one has to obtain them and the credit will be awarded no sooner than 30 to 60 days, even if there is proof of income.

Annex II – International Comparative Analysis

Econometric Models

The influence of bureaucratic inefficiency on the economic growth was analyzed based on the econometric model described by the equation (1) to (3). In the first expression, called income equation, yi,t designates the product per worker of the economy i in the instant t. Explicative variables are the investment rates (si,t), the break-even investment rate (ni,t + g,t + d), composed of the growth rates of the work force, increase in productivity and depreciation, and the slowness of bureaucracy (buroi,t). It is a vector of variables of the productivity and governmental efficiency — used to capture other dimensions of the economic efficiency that influence the nations' productivity. The error of the equation has two components, which indicate the part that corresponds to the specific effect of the country αi and the random error Σit, and a definite and constant variance with a zero average δ2. This formula closely follows the works of Soto (2003) and Santana (2004).

(1) $$\ln y_{i,t} = +\beta_1.\ln s_{i,t} + \beta_2.\ln\left(n_{i,t} + g_{i,t} + d\right) + \beta_3 \cdot buro_{i,t} + \boldsymbol{\lambda} \cdot \mathbf{z}_{i,t} + \alpha_i + \varepsilon_{it}$$

In the second expression, also called equation of conditional convergence by literature, the dependent variable is the economic growth rate, and in the explicative variables the product per dephased worker in a specific period (yi,t-1). is included.

(2) $$\ln y_{i,t} - \ln y_{i,t-1} = \Delta \ln y_{i,t} = \beta_0.\ln y_{i,t-1} + \beta_1.\ln s_{i,t} + \\ + \beta_2.\ln\left(n_{i,t} + g_{i,t} + d\right) + \beta_3 \cdot buro_{i,t} + \boldsymbol{\lambda} \cdot \mathbf{z}_{i,t} + \alpha_i + \varepsilon_{it}$$

The third equation specifies the growth rate as dependent on the variables that explain the growth.

(3) $$\ln s_{i,t} = +\beta_1.\ln y_{i,t-1} + \beta_2.\ln\left(n_{i,t} + g_{i,t} + d\right) + \beta_3 \cdot buro_{i,t} + \boldsymbol{\lambda} \cdot \mathbf{z}_{i,t} + \alpha_i + \varepsilon_{it}$$

The estimative of the equations (1) to (3) applied the panel methodology. As Forbes (2000) argues, the panel estimative is an appropriate method to capture the relation between the dependent and explicative variable in a country. Moreover, of specific regional factors, which affect the economic growth not taken into consideration by the explicative variables.

The standard panel estimation alternatively employs the method of random effects. In the fixed effect model, the estimation is based on the differences in each country through time. On the other hand, in the random effect model, which produces more efficient estimators, when the specific effects of the country are not correlated with the other explicative variables of the model, the estimatives are based on the differences between the countries and the periods. The Hausman test evaluates if there is or not systematical differences between the coefficients calculated through these models.

To deal with the problem of endogeneity that appears with the introduction of the dependent dephased variable, equation (2) employed the technique of estimation suggested by Arellano e Bond (1991). The estimation based on the generalized moment method (GMM) uses the first differences of the variables, in order to eliminate the fixed effect of the country and uses the dephasing of the variables as tools.

Data

The sample employed covers 98 countries, between 2003 and 2006, with annual periodicity. The data were obtained through the World Development Indicators 2007 (WDI) and Penn World Tables 6.1 (PWT), except for the productivity increase rate which was obtained in the FGV Projects (2007). A total of 368 observations were analyzed.

The GIP per worker was obtained dividing the values of the GIP, in 2005 dollar value, by the work force. The GIP data used are in natural logarithms. The investment is expressed in logarithms and refers to the current rate for each year. The work force's growth rate is added to the increase in productivity and to the constant 5% rate of depreciation. The break-even investment is in logarithm.

The effectivity degree indicator of the public sector, produced by the World Bank, measures the capacity of a country's public authority to implant its politics. It is set in an interval between -2.5 and 2.5, the bigger a value obtained by a country, bigger the effectivity of government. The level of bureaucracy is measured by the number of days necessary to establish a new company. This was the variable chosen because it is highly correlated to the number of days necessary for the construction of a commercial warehouse (including the project and approval) and with the number of days necessary to register a property, two important dimensions of the problem in the institutional field. The number of days necessary for establishing a new company as a proxy variable of the bureaucratic effects in housing procedures because this indicator has a greater number of informations, which permits to assess the evolution of the slowness of bureaucracy in different countries, and if this evolution affects its income and economic growth levels.

Results

The A.1 and A.5 charts show the results of the econometric estimates in accordance with the suggested techniques. In the equations (1) and (3), there is no need to use the Arellano-Bond technique.

Chart A.1. Equation (1) by fixed effect

Fixed-effects (within) regression — Number of obs = 368
Group variable (i): i — Number of groups = 98

R-sq: within = 0.2024 — Obs per group: min = 1
between = 0.5312 — avg = 3.8
overall = 0.5121 — max = 4

F(5,265) = 13.45
corr(u_i, Xb) = -0.7557 — Prob > F = 0.0000

lny	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnngd	-.0921191	.01802	-5.11	0.000	-.1275997	-.0566384
lnburo	-.0554384	.0091888	-6.03	0.000	-.0735308	-.0373461
effet	.0180398	.0219144	0.82	0.411	-.0251086	.0611883
lna0	-.1107444	.2206628	-0.50	0.616	-.5452198	.323731
ga	1.940347	.4015655	4.83	0.000	1.149682	2.731012
_cons	9.91311	.9545052	10.39	0.000	8.033731	11.79249

sigma_u	1.2861323	
sigma_e	.04061919	
rho	.99900354	(fraction of variance due to u_i)

F test that all u_i=0: F(97, 265) = 300.83 — Prob > F = 0.0000

Chart A.2. Equation (1) by random effect

Random-effects GLS regression — Number of obs = 368
Group variable (i): i — Number of groups = 98

R-sq: within = 0.2216 — Obs per group: min = 1
between = 0.8691 — avg = 3.8
overall = 0.8714 — max = 4

Random effects u_i ~ Gaussian — Wald chi2(6) = 907.50
corr(u_i, X) = 0 (assumed) — Prob > chi2 = 0 0000

lny	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
lns	.1183646	.023423	5.05	0.000	.0724563	.1642729
lnngd	-.0912858	.0193045	-4.73	0.000	-.1291219	-.0534498
lnburo	-.0537082	.0097412	-5.51	0 000	-.0728007	-.0346158
effet	.0598899	.0214285	2.79	0.005	.0178908	.1018889
lna0	.813892	.0342887	23.74	0.000	.7466873	.8810967
ga	1.271373	.4094113	3.11	0.002	.4689415	2.073804
_cons	6.097761	.1677817	36.34	0.000	5.768915	6.426607

sigma_u	.3392156	
sigma_e	.03884115	
rho	.98705877	(fraction of variance due to u_i)

Chart A.3. Equation (2) by Arellano-Bond

Arellano-Bond dynamic panel-data estimation
Group variable (i): i

Number of obs = 368
Number of groups = 98

Wald chi2(8) = 434.00

Time variable (t): ts

Obs per group: min = 1
avg = 3 755102
max = 4

One-step results

gy_l	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
gy_l						
LD	.0301009	.0373501	0.81	0.420	-.043104	.1033058
lny_1						
D1	-.6362529	.0363003	-17.53	0 000	-.7074001	-.5651056
lns	.0075128	.0030594	2.46	0 014	.0015165	.0135091
lnngd	-.0399906	.0055152	-7.25	0 000	-.0508003	-.0291809
lnburo	.0010689	.0010701	1.00	0.318	-.0010284	.0031662
effet	-.0013508	.0012789	-1.06	0.291	-.0038573	.0011557
lna0	-.003169	.0009407	-3.37	0.001	-.0050128	-.0013253
ga	1.072263	.1310596	8.18	0.000	.8153906	1.329135
_cons	-.0668787	.0154654	-4.32	0 000	-.0971903	-.036567

Sargan test of over-identifying restrictions:
chi2(61) = 186.74 Prob > chi2 = 0.0000

Arellano-Bond test that average autocovariance in residuals of order 1 is 0:
H0: no autocorrelation z = 0.27 Pr > z = 0.7907
Arellano-Bond test that average autocovariance in residuals of order 2 is 0:
H0: no autocorrelation z = 3.94 Pr > z = 0.0001

Chart A.4. Equation (3) by fixed effect

Fixed-effects (within) regression
Group variable (i): i

Number of obs = 368
Number of groups = 98

R-sq: within = 0.0594
between = 0.0021
overall = 0.0026

Obs per group: min = 1
avg = 3.8
max = 4

corr(u_i, Xb) = -0.7776

F(5,265) = 3.35
Prob > F = 0.0060

lns	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
lnngd	-.0835549	.0498938	-1.67	0.095	-.1817936	.0146838
lnburo	-.081548	.0254419	-3.21	0.002	-.131642	-.0314539
effet	.0331255	.0606765	0.55	0.586	-.0863438	.1525948
lna0	-.3036833	.6109704	-0.50	0.620	-1 506657.	.8992906
ga	2.630492	1.111853	2.37	0.019	.4413022	4.819682
_cons	-.2101651	2.64283	-0.08	0 937.	-5.413782	4.993452
sigma_u	.40006488					
sigma_e	.11246627					
rho	.92675959	(fraction of variance due to u_i)				

F test that all u_i=0: F(97, 265) = 17.68 Prob > F = 0.0000

Chart A.5. Equation (3) by random effect

Random-effects GLS regression — Number of obs = 368
Group variable (i): i — Number of groups = 98

R-sq: within = 0.1127 — Obs per group: min = 1
between = 0.1005 — avg = 3.8
overall = 0.1115 — max = 4

Random effects u_i ~ Gaussian — Wald chi2(6) = 36 57
corr(u_i, X) = 0 (assumed) — Prob > chi2 = 0 0000

lns	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
lny	.2471405	.0583263	4.24	0.000	.1328231	.361458
lnngd	-.0403924	.0477237	-0.85	0.397	-.1339291	.0531443
lnburo	-.0447188	.0204939	-2.18	0.029	-.0848862	-.0045514
effet	-.0178345	.0352919	-0.51	0 613	-.0870054	.0513363
lna0	-.2311503	.0497276	-4.65	0.000	-.3286146	-.133686
ga	1.72966	1.008573	1.71	0.086	-.2471063	3.706427
_cons	-2.884333	.4092917	-7.05	0.000	-3.68653	-2.082136

sigma_u	.24180003	
sigma_e	.10754322	
rho	.83485531	(fraction of variance due to u_i)

Case Study – Diagnosis of the bureaucratic obstacles for civil construction in Joinville (SC)

TEAM
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Presentation

The present report shows an analysis of the bureaucratic procedures for civil construction in the city of Joinville (SC). Its contents synthesize the material gathered in a field research that was carried out together with FGV Projects and ABRAMAT, with local agencies involved in the process. In its current phase, this document gives a mapping of bureaucratic processes related to residential construction. The text brings a vision that is still marked by the point of view of the city's bureaucratic structure, where you still have, the players with the most active voice.

During the following stages, we intend to enrich the material with more elements related to the vision of the bureaucracy users. Collaterally, it will be possible to point out a few actions to improve the processes, as well as a comparative with the bureaucratic practices of the city of São Paulo.

The Reasons for Bureaucracy

In Brazil, the term bureaucracy usually has a pejorative content. But, in fact, this is due to a certain semantic confusion. The word bureaucracy gets mixed up with "bureaucratic slowness", "administrative lentitude", "inefficient processes" and even with "the great and inefficient governmental machine". But bureaucracy, as a group of specialized professionals, appears in modern times as the consequence of the need to hierarchize public administration and, above all, give it an impersonal, rational and continuous character.

As we all know, the bureaucratic structures do not always fulfill the above described character and, therefore, the word bureaucracy has become synonymous of bureaucratic inefficiency. And the state segment responsible for housing supplies various examples of this type. That is why we find, all over the world, initiatives to reduce bureaucratic procedures in civil construction. The objective is two-fold: to speed up the processes and make them more effective.

These initiatives have various common aspects, even though they are different and implemented independently. The first of them is to recognize that, in the beginning, bureaucracy in the housing segment arose from two legitimate concerns. It is the result of urban growth and the consequent increase in the complexity of social relations that occur in big cities, as well as concerns with the security and well-being of its inhabitants. This becomes evident when we think about the relatively recent new regulations that have appeared in the fields of environmental law and consumer rights, which have imposed various rules to habitational construction that were added to the old ones related to the mere use of urban land.

The so called "combat against bureaucracy", a term that clearly refers to its dysfunctional and pejorative aspect, only applies when, in the name of these legitimate concerns, bureaucracy ends up by creating more obstacles and more costs then the benefits it intends to generate in terms of security, well-being and urban social conviviality. Obstacles can generically be called bureaucratic knots,

in an image that is closer to the difficulties agents face throughout the processes for obtaining building permits.

We need to immediately point out that, once it has begun, the combat against bureaucratic dysfunctions and excesses requires continuous monitoring, because dysfunctional bureaucracy tends to reinvent itself. As we shall see further on, a few common guidelines have marked the initiatives to modernize housing construction bureaucracy all over the world:

- Growing use of IT;
- Harmonization of rules between different regulatory agencies;
- Standardization of rules between different regions;
- Fragmentation of the processes, in order to permit the obtainment of licenses in steps;
- Elimination of the processes' internal barriers and their substitution for exit barriers;
- Differentiated treatment for different types of works;
- Parallelism in the procedures that "are circulating" in different agencies;
- Regularization incentives.

The case of Joinville is quite illustrative for the validation of these guidelines, as well as, in some cases, for the difficulty in implementing them.

The present study interviewed public agents in various agencies of the local bureaucracy, as well as the users of the bureaucracy. With the first group, the objective was to understand the formalities or, as the own bureaucrats say, "the formalities of the processes". With the users, the objective was to search for a critical vision, congregating opinions and suggestions with the intention of improving the processes. We want to point out, as of now, that users are quite critical. In the specific case of Joinville, it is important to notice that the users' insatisfaction makes a clear distinction between the bureaucracy and the bureaucrats. Among the different claims that were related, mainly on the complexity of the rules, there were always personal and informal compliments for the bureaucratic agents.

Joinville's Particularities

Joinville has at least two urban characteristics that sets it apart from most of the Brazilian cities. In the first place, along with Vila Velha, in Espírito Santo, it is one of the only Brazilian cities that are bigger than their respective State capital. Both its population and the municipal GIP surpass those of Florianópolis. Moreover, it has one of the highest Human Development Indexes in the country (0.857), which corresponds to the thirteenth position in national ranking. In this context, the first objective of urban planning is to unite the social-economic development to the preservation of its inhabitants' quality of life.

Another excellent characteristic is that the municipality's territory contains areas of preservation and environmental interest. When observing, even superficially, the city's urban occupation pattern, one can notice that the coast strip of Joinville is the reason it did not grow from an urban center. This is due, among other things, to the industrial vocation of the city. Yet, its territory encloses various zones where occupation must respect different environmental rules. In some cases, as we will see further on, this creates rigid limits for housing construction.

Joinville and neighboring Municipalities: political division

Joinville still stands out for having low verticalization and, consequently, a very small habitational density in the downtown area as well as all the neighborhoods. On one hand, this is considered by a few as a social-urban patrimony of the city. With the rare presence of big buildings the sky is always visible. On the other hand, the population that lives in one story houses shows a clear preference for this type of property. But this fact also offers challenges to urban planning, by raising the need for a public transport network and a water and sewer distribution area, for example.

In light of this situation, should urban planning incentivate verticalization? This question cannot be answered easily.

Another element that makes Joinville's urban issue even more complex is the presence of highway BR-101. The highway cuts the city's territory from north to south, creating a border to urban expansion. The highway in itself is not a factor that limits the city's growth but, until now, most of the urban occupation of the land is in the zones between BR-101 (to the west) and the narrow coastland (to the East). Bureaucratically speaking, works on the side of the highway call for analysis and approval of the South Coastal Auto-track concessionaire. Something similar to what happens with regard to the State Infrastructure Department (Deinfra), when the construction is on the side of a State highway.

Last but not least, there is a hydrological aspect, very peculiar to the region. The city's small coast band faces the Babitonga Bay. The cities of São Francisco do Sul and Araquari are also on this Bay. Because it is near the sea, Joinville's hydrography has a typical complexity. The municipal territory has a great number of rivers and streams, which subject housing construction to the Forest Code rules, of federal jurisdiction. There is also the state legislation requirement,

which establishes that all the municipalities on the coast have a specific environmental legislation, integrating with the State Plan for Coastland Management, which regulates the use and occupation of land related to hydrographic basins and coastal zones.

Another initiative of great interest is the Urban Draining Master Plan for the Cachoeira River, which has the financial support of the Inter-American Development Bank (BID). This plan covers the Hydrographic Basin of the Cachoeira River and its 28 sub-basins – a 93km extension of rivers and an 82 km2 area only in the city of Joinville. Asides the works for the adaptation of the existing infrastructure, the plan's objective is to compatibilize the urban development with the hydrologic characteristics of the basins, minimizing the risks of floods and regulating the occupation of the land.

These peculiarities bring about two types of challenges for urban planning and housing construction. On one hand, there are potential legal conflicts between the federal, state and municipal environmental rules. As we shall see further on, even the players, users of the bureaucracy, as well as the urban planners, warn about these conflicts.

But even at a municipal level one can identify risks of legal conflicts. For example, the Urban Master Plan was established by the Complementary Law 261, of February 2008. It was prepared in syntonization with the Complementary Law 27, of March 1996, which disciplined the use and occupation of urban land. This last law is well elaborated, but criticized for having too many details. If the legislation concerning the Draining Master Plan or the Coastland Management Plan is created through complementary law, it will have the same status as the original Master Plan and the Land Use Law.

However, since they are more recent, if a conflict arises they will revoke the dispositions established in the previous legislation. This is a simple rule of law: the most recent law revokes the older one when there is a conflict between the two. The potential of uncharacterization of the Master Plan and the Land Use Law should be considered, as well as its eventual impacts on the bureaucracy.

Moreover, since the detailing of the Coastland Management Plan is being structured, as a rule separately in each city, expressive differences can occur between the land occupation limits in one same hydrographic basin. For example, if Joinville restricts constructions in a specific zone so as to environmentally preserve a stream, but a neighboring city, located further upstream in the same basin, has a more liberal legislation, the effectiveness of Joinville's policy will be quite impaired. Because of its condition as a hub city, Joinville might come to suffer from pendular migration movements if the urban occupation of neighboring cities occurs in a less planed manner. And since there are large preservation areas and environmental interests on the limits of its territory, the regional disarticulation of the environmental laws of each municipality can be a threat to the quality of life.

Bureaucratic Disfunctions

Dimension and limits of the analysis

According to information from City Hall itself, the script for obtaining a building permit that already has a project duly elaborated by an architect or accredited engineer can be subject to 45 steps. In more simple cases, when a smaller number of expert opinions and analysis are required, these steps can be limited to 32. In more complex cases, the occurrence of successive inadequations or mistakes in the corrections required by the users of the bureaucracy can generate a number of steps far superior to 45. However, in this case, this is not due to the bureaucratic complexity but to other difficulties.

Many of the steps described by City Hall employees are just simple procedures, such as annexing a standard cover to a proceeding or an update of the Request Rgister System (TI element of the bureaucratic process). Although they are vital to the employees involved, these procedures shall be omitted in the analysis below. The objective is double: facilitate the understanding of bureaucratic flows and keep focused on its important elements.

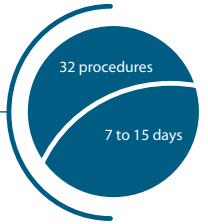
Players on the stage

Understanding bureaucratic processes requires, firstly, the capacity to recognize the players of the governmental machine, in other words, the organs involved. After which, one needs to understand the bureaucratic flows.

The municipal bureaucratic nucleus for housing construction is the Seinfra and its Unit for Projects Approval (UAP), which is the main player. City Hall has a unified protocol, under the responsibility of the Municipal Secretary of Public Finances (Sefaz). This protocol represents the beginning of the bureaucratic itinerary for housing construction.

In many cases, before directly triggering the bureaucracy, the parties interested in obtaining a license can previously consult the Internet. This preliminary consultation is so important that it deserves to be listed here as one of the players of the process, even though it is an IT assistance offered by the Seinfra. Through this preliminary consultation, anyone interested in obtaining a license can get familiar with legal details, with highlights on the Law on Land Use and Occupation. This allows for the project to be previously adjusted to the laws that that regulate housing construction before being protocoled, and therefore speed up the process.

In simple cases, without project complications, and only 32 necessary procedures, only these three players are involved, and the license can be withdrawn, according to information supplied by City Hall, in an average of 7 to 15 days. Taking into account the processes that are returned for adequation and/or consultation to other organs, the average expedition time of the license is around 30 days. From then on, the obtention of the Building Conclusion Certificate will depend on the liberation from organs such as the Fire Brigade or Sanitary Surveillance, who will prove or not the compliance to laws related to building security and the adequation of water supply and sewer collection, among others. In other cases, however, specific organs must be consulted.



In the final stage, that allows for an effective occupation of the buildings, you have the obtention of the Construction Conclusion Certificate. Its emission depends on obtaining the Building Permit and Sanitary Permit (Habitation License), as well as the inspection to evaluate the conditions of use and occupation and their compliance with the approved project.

If the dimension or complexity of the project has a potential impact on the road network or diverse urban aspects, the Seinfra can require specific expert opinions from the Urban Research and Planning Institute of Joinville (IPPUJ). It is interesting to note that the essential mission of the Institute is planning activities. It is not, therefore, an organ essentially tied to the bureaucratic processes. Still, due to the competencies and abilities of its technical staff, the IPPUJ is often called upon by the housing construction bureaucracy, and part of its express attributions includes the development and follow-up of projects. This is why the IPPUJ appears as a "supporting actor" in the housing construction bureaucratic processes.

Another strong player is the Municipal Environmental Foundation of Joinville (Fundema). The mission of this organ is sustainable development, with the preservation, conservation, recuperation and rational use of natural resources. Fundema has elaborated and implanted special projects, such as the creation of parks and ecological stations, maintenance of green areas, protection of mangals and the rationalization of mineral extraction. Moreover, it fiscalizes all actions that are potentially aggressive to the environment and, when necessary, orients its recuperation. Fundema is responsible for the environmental licensing proceedings that run in parallel to the Seinfra processes. Because of the peculiarities of water supply, special attention is given to projects in rural areas and hill sides, which are very common in the city that is 40m above sea level (a mark called "quota zero"). In more complex cases, a parallel environmental license proceeding is submitted to the state authorities, currently reunited in the Sustainable Economic Development State Secretary. Amongst these authorities, we can highlight the State Council for Environment (Consema) and the Santa Catarina Foundation for Environment (Fatma). All the environmental aspects related to hydric resources, including drainage (a vital element in the city due to the low altitude of most of the urban area) are under the jurisdiction of the environmental organs. For hydrological and hydraulic aspects, the organ responsible for the drainage network, composed of galleries, trenches, streams and rivers is the Seinfra's Drainage Unit.

The last player involved, who also has a "supporting" role, is the Cultural Foundation of Joinville. Its attribution in the bureaucracy for the obtention of a building permit is to analyze the projects that can impact listed properties, designated as local historical and/or cultural landmarks.

From the preliminary consultation to the Construction Conclusion Certificate

Now that the players were identified, we can describe the sequence of the housing bureaucracy process in Joinville. As a rule, the user's first contact with the bureaucracy is with the preliminary consultation. This consultation calls for a few necessary requirements: access the Seinfra Website and request the preliminary consultation, which shall supply the user with important technical details that he has to comply with, such as zoning, use category, minimum occupation rate, minimum distances, no construction area etc. When necessary, the preliminary consultation will also inform the need for previous environmental licensing. If there is no impediment in this phase, one can ask for the Building permit, informing the City Hall real estate inscription of the lot.

The following step is to verify and approve the project. Seinfra can be consulted only for checking the projects, without initiating the process of requesting a building permit.

Once the project is approved, the user then goes to the most important part of the bureaucratic construction process. Everything begins in the big waiting room of the protocol, under the responsibility of the Sefaz, where the interested parties submit their Building Permit request. Processes addressed to

the Seinfra have an exclusive window. As we saw, in some cases, the bureaucratic users have previously consulted the Sienfra Website to obtain useful information for the construction project they intend to protocol. But the verification and approval of the project can be request through a one step procedure, which can also trigger the permit request phase.

At this point, the process faces its first bureaucratic knot, which is a typical internal barrier, where the Sefaz carries out a previous fiscal audit before the process is submitted to the Seinfra. If there are any fiscal pendencies, the organ will request previous regularization. That is why many processes are returned to the user in this first step, due solely to fiscal reasons. An alternative would be that typical bureaucratic construction processes could follow their course in parallel and that only the final step (license expedition) require fiscal regularization. Processes could thereby run in parallel: the process to the Seinfra and the measures the user has to take in order to regularize his property with the Municipal Treasury.

In the Sefaz, the protocoled documents effectively become a proceeding, with the right to a traditional cover and its register in the Entrance System, which centralizes the information for this type of documentation. Then you have your first bureaucratic knot, which at times results from the mere filling out of the process cover and/or its registration in SCR. The registration of the proceeding in the Requirement Register is done at the Seinfra.

After the fiscal audit, the proceeding enters the nucleus of the construction bureaucracy: Seinfra's Project Approval (UAP), does a first selection to identify if the other bureaucratic organs have to be called upon or not.

The more simple cases are analyzed first.

Assuming that there are no mistakes in the project and in the way it was submitted to the Sefaz, and assuming that there is no need for an expert opinion from other organs, Seinfra itself will issue the permit, requesting it be forwarded to the Taxation Sector of the Treasury Department. Then you have the beginning of the steps necessary for the obtention of the Building Conclusion Certificate, which are not under the jurisdiction of the Seinfra, with the involvement of Sanitary Surveillance and the Fire Brigade, asides for companies responsible for connecting the public water, electricity and sewer supply. City Hall has the responsibility for fiscalizing the construction and guaranteeing its compliance to the project.

After this simple case, which we can call "express procedure" that takes from 7 to 15 days (according to information supplied by the Seinfra) other situations arise that reduce the speed of the process.

Before analyzing bureaucratic knots, such as the Sefaz's previous audit, already mentioned, we need to analyze the obstacles created by bureaucratic users. Even if the proceeding's "supporting actors" do not need to be called upon, the Seinfra can identify mistakes or insufficiencies in the protocoled project. In such cases the user has to receive an official notice specifying the necessary corrections so that the process can be analyzed and follow its course. During this stage, the list of possible incorrections in infinite: scale errors, absence of simple elements such as doors and windows in the building plan, inadequations of the distances with regard to the zoning requirements etc. There is no way to foretell the delay that these incorrections can cause in a process since this depends on the adequation the user has to implement.

Now, assuming there is a need for expert opinions from other organs, the permit obtention process can present some parallelisms of great importance for attaining greater agility. This is typical for projects that need an environmental license, which is when the Fundema enters the scene. Before this organ can analyze an environmental license request, it has to issue a document called Land Use Viability Certificate. This certificate only guarantees that the user has a pretension that doesn't offend the municipal legislation for land use and occupation.

It is important to point out that Fundema's bureaucratic procedures do not provoke a bureaucratic knot since the Seinfra does a parallel analysis of the process. Furthermore, Fundema's concession of an environmental permit is done progressively because the process is fragmented. In the first stage, a preliminary license is issued, which is one step beyond the land use viability certificate. This license allows the user to anticipate the project's engineering and architectural details for protocoling in the Sefaz.

In the following stage, assuming the project is technically adequate, the installation permit is issued. This document is necessary for the connection of the water, electricity and sewer supply in areas subject to environmental control. Finally, the Construction permit is granted, a document that asserts that the property can be occupied if it complies with the land use determined in the proceeding. In any of the three stages, whenever necessary, the user must obtain the environmental license with the state authorities, and eventual errors in the project must be corrected.

Parallelism between bureaucratic procedures in course in the Seinfra and Fundema are an important reference for the improvement of bureaucratic construction proceedings, in Joinville as well as in any other municipality.

When the other organs are called upon, such as the Cultural Foundation of Joinville, the ANTT or Deinfra, They can simply emit positive opinions or ask for adequacies in the projects. In both cases, the UAP will have to perform a new analysis and the SCR - Request Registry - System a continuous updating.

The final steps of the construction bureaucracy depend on the issuance of a Construction Conclusion Certificate, which calls for an inspection, and is used for the registration of the property with the notarial registry office, together with a clearance certificate of INSS debts.

The Vision of Bureaucracy Users

The assessment of the bureaucratic process is completed by the users' point of view, since it is natural that the public agents that participate in the bureaucratic processes have a relatively positive vision of these said processes. After all, bureaucratic rules were created, originally, to defend collective interests and organize the complex web of urban relations.

In this specific case representative users were interrogated, such as:

- Sinduscon-Joinville, the construction industry union;
- The Ajorpeme engineering nucleus, a Joinville and adjacent region association of micro, small and medium sized companies; and
- Ajeci, the Joinville Civil Engineering Association.

These three entities contributed with different visions of the local bureaucracy. The Sinduscon represents the greater constructors of Joinville and other municipalities in the region. Their constructions and, therefore, their processes are bigger and more complex. In turn, Ajeci congregates engineering companies and professionals whose customers are, for the most part, families that desire to build or remodel their property. Micro and small sized companies are also customers of the Ajeci associates, and their point of view was also registered during the Ajorperme consultation. We point out that the opinions of this last entity are very similar to the ones given by the Ajeci representatives.

User Evaluation

As a rule, all the users interviewed are critical of the complexity of the construction legislation. This is typical of Ajeci, whose associates are engineering and architecture bureaus that attend families and smaller companies. Differently from the Sinduscon-Joinville, Ajeci's customers are relatively laymen when it comes to bureaucratic rules and processes and declare themselves often perplexed with the great number of restrictions imposed by the legislation in all levels, the local level (Land Use Law),the state level (hydric management) and the federal level (Forest Code). According to Ajeci, there are many entrepreneurs that declare they intend to leave the city because of the difficulties they have with the complexity of the rules. This same type of observation was registered during the Ajorpeme consultation.

In turn, the Sinduscon-Joinville observed that the Forest Code establishes environmental rules at a national level, which often do not respect local specificities. In Joinville's case, one of the biggest restrictions is hydric resources, since the region has a great number of streams. The opinion of the Sinduscon-Joinville representatives points to the need for great concern with another peculiar aspect of the region - drainage. As we have already seen, an expressive part of the city's territory has very low altitudes and the reflow of tidal waters is a common problem. In this case, according to representatives of the entity, the rules and bureaucratic agents need to be very attentive.

A peculiar aspect disclosed in the interviews with the users is that a lot of them compliment the personnel responsible for the municipal bureaucracy, revealing different visions of the bureaucracy and the bureaucrats. But this assessment showed a high degree of informality and personality. Predominating opinions pointed to the "good will" of the personnel involved, a fact that was registered by the public agents themselves, especially the City Hall organs.

Thus, in many cases, inadequations in the documentation attached to the processes provoke their return to the users with requests for corrections, which

creates a type of bureaucratic looping characterized by the circular course of the processes. Most of the time they are small technical problems concerning the design of the plans or even the non compliance of accessibility rules for the handicapped. Many users declared that in such cases they simply telephone the Seinfra to obtain orientations on how to carry out the necessary corrections.

It is interesting to note that this fact, which was highlighted as positive by a few bureaucratic users, will end up generating an even greater number of bureaucratic loopings, in other words, the processes will return to the starting point. It is a typical case of moral hazard, a phenomenon that is widely discussed in microeconomic literature and that is about bureaucratic behaviors used to speed up the processes, but which end up provoking certain carelessness in the users, increasing the possibilities of loopings. It is an ambiguous situation in which a characteristic that is praised by the users – that might even seem favorable to each of them separately – end up having the public agents do the same work twice and overloading the bureaucratic machine.

Still, all the users interviewed declared that a good part of the loopings is caused by bureaucratic requirements that are not given in block, but in sequence. They complain that all the different bureaucratic organs, from Seinfra to the Fire Brigade, when they receive the documents they asked for, come up with new requirements that could have been requested all at once in the first looping. The bureaucracy defends itself by saying that, in this aspect, the users are often careless in the adequation of the documentation. In this case it is difficult to say which of the two parties is right, because it is a typical communication problem

Seinfra agents even recalled lectures that were given to improve the understanding of the users, but declared that the results were very limited, especially for small sized projects, related to families and smaller companies.

Another important aspect is urban zoning. All the consulted users, without exception, declared not having any difficulty in understanding the city's Land Use Law. But they considered it excessively complex, meticulous and restrictive. Its main characteristic, very peculiar in Joinville, is the fact that the zoning complies to a double criterion, with restrictions based on the property's destination. Because of this, the city's map has become a mosaic of very small parts. In each area there are specific and detailed rules for residential, commercial and industrial constructions.

The typical example, pointed out by different users, is that the great majority of the population, that has no knowledge of the urban legislation terms, is not able to understand why a certain type of construction is allowed in a certain area, forbidden a few blocks away, and then allowed a little further over. This incomprehension often stimulates informal constructions, which don't respect zoning rules. According to Ajeci this aspect discourages investments in the city.

One of the bureaucracy users affirms that the process of discussing publicly the Land Use Law, promulgated in February 2008, tried to attend the most varied interests of the city's population, but ended up becoming an excessively complex patch quilt. This same user declared that this healthful democratic objective finished by generating a legal text that doesn't have the adhesion of the majority of the population. As a result, many constructors, worried about the legal adequation of their constructions, found themselves limited in the exploitation of the city's constructive potential. This is also true for small entrepreneurs. In turn, the laypeople, often acting in good faith, end up disrespecting the rules and having problems with the municipal bureaucracy.

Maybe because of this complexity, another complaint of the users, especially Ajorpeme, is about the different interpretations of rules given by different bureaucratic agents. According to the association, it is common that very similar processes take different directions or receive different bureaucratic

requirements, depending on the analyst that studies each process. Ajorpeme attributes this fact to the lack of investment in the qualification of public agents and the turnover of the personnel responsible for the course of the process. Aiming at improving communication with the bureaucracy and conscious of the lack of know-how of some engineers and newly graduated architects for dealing with bureaucracy, the association informed that it offers courses on the regularization of properties and is elaborating a document called the Handbook of Good Construction for guiding the associates so that they can comply as best as possible with the legal requirements.

Actions for Improvement

The practical actions directed towards the reduction of bureaucratic inefficiency, analyzed in this section, come from both the reflections of the bureaucracy itself and suggestions from users. They converge to four points:

- Intensification of the use of IT technology:
- Reduction of bureaucratic loopings, that is, of cases where the processes have to go back to square one;
- Increase in parallel procedures, which allow for different bureaucratic actions to take place at the same time simultaneously;
- Standardization of procedures and qualification of the public agents;
- Simplification of land use legislation; and
- Reduction of the increasing overlappings in environmental legislation.

With regard to a greater use of IT, users are unanimous in praising the computerization of the preliminary consultation. The agility that this procedure brought to the initial stages of the processes, by avoiding that the bureaucracy be addressed unnecessarily, is considered by all as a noteworthy breakthrough. The great suggestion is that the fiscal audit, which the Sefaz does right after the initial protocol, be streamlined through a more intensive use of IT, in such a way that the preliminary consultation itself can point out eventual fiscal obstacles that could frustrate the course of the processes.

This suggestion brings us to the so called bureaucratic loopings, in other words, cases when the process goes backwards. Various users affirm that they believe that the processes could run parallely in different organs, so that the requirements for complementing documentation or adequating projects could be done in block. Bu t they also suggest that, if possible, the processes follow their course in spite of eventual inadequations, subjecting their final approval to the delivery of the documentation or the missing corrections. Thus, for example, Sefaz's fiscal audit and Seinfra's analysis of projects should be done in parallel. The process eventually returned by Sefaz would follow its course in the Seinfra, but the final liberation would obviously depend on the correction of eventual problems with the municipal Treasury. This solution was also suggested for processes that run simultaneously in environmental and water organs in Seinfra. This greater use of parallelisms in bureaucratic processes was, therefore, one of the main tonics of the suggestions.

Still about loopings, several users declared that the bureaucratic requirements are often unclear, which provokes the return of the process to the same users repeatedly in order to get the adequation straight. They suggested a greater stability in the authorities' guidelines, especially the environmental ones, whose interpretation change frequently, according to the users.

One of the highlighted subjects was the need to keep the technicians qualified and accumulating experience in bureaucratic functions in order to obtain a greater interpretation uniformity and more constancy in the in the standards of the requirements the users have to face. This calls for a greater interaction of the bureaucratic organs, gathered around consistent guidelines for the interpretation of rules. These are the concerns of both the consulted entities and the various bureaucratic organs. These same organs recognize their need to advance in communication and the coordination of their activities. The users believe that many loopings occur because of the uncertainties in the interpretation of the rules, a fact that could be reduced through the correct

management of the human capital that is part of the bureaucratic machine.

Finally, both the users and public agents were unanimous in criticizing the Land Use Law, which we have widely discussed. The users still reveal extreme concern about the increasing complexity of environmental laws, due in part to the State of Santa Catarina Program for Coastland Management, which is now being implemented. In this specific case, once again we experience the principle that although bureaucratic laws are created with the objective to defend collective interests, they often become so complex that their social costs surpass their benefits.

No user was against urban planning guided by environmental guidelines, especially on the coastland area. But all of them point out the increasing overlapping of environmental rules, each with different restrictions against construction investments. An objective solution is to take advantage of the implantation of the coastal management to simplify the Land Use Law. The final objective is that the rules, without exception, be clear, less complex and overlapping, and that they prioritize environmentally responsible and sustainable investments for the quality of life.

The synthesis of the users' comments, that also reflects the thoughts of some agents of the Ippuj, is that the construction rules in force in Joinville are much more worried with what they don't want in the city than with what they wish to have, today and tomorrow. It is a constructive criticism that we should dwell on.

Campinas (SP) Civil Construction Project Diagnosis and Approval Proposition

PREFEITURA MUNICIPAL DE CAMPINAS

UNICAMP

Ciatec
COMPANHIA DE DESENVOLVIMENTO DO PÓLO DE ALTA TECNOLOGIA DE CAMPINAS

HABICAMP
Associação Regional da Habitação 22 anos
Construindo Relações

Francisco de Oliveira Lima Filho, President – Habicamp
Sérgio Cosmo Vargas Fernandes, Professor – Instituto de Economia da Unicamp (Unicamp Economy Institute) and Vice-President – Habicamp

Campinas Great Figures

Competitive capacity and investment enticement

Campinas

Selected Data

- Foundation: 07/14/1774
- Population: 1.039.297
- Area: 796 km2
- Hospitals: 32
- Bank agencies
- Companies: 50.305

Distances

- São Paulo: 96 km
- Santos: 172 km
- Brasília: 921 km
- Belo Horizonte: 601 km
- Porto Alegre: 1.177 km
- Buenos Aires: 2.300 km

Health Excellence

- Efficient and diversified service
- 4.8 doctors per inhabitants
- 325 health care establishments
- Child mortality: 9.8 per 1000 inhabitants
- Life expectation: 74.8 years

Diversified Logistics

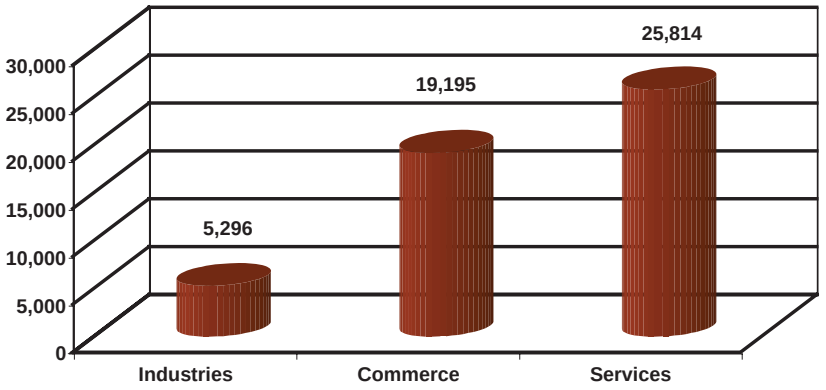
- Highway Grid: five of Brazil's important highways cross through Campinas: Anhanguera, Bandeirantes, Dom Pedro I (Presidente Dutra and Fernão Dias), Adhemar de Barros (South of Minas Gerais) and Santos Dumont (Highway Castelo Branco).
- Viracopos Airport: the largest Airport in Latin America.
- Railway Grid: two railways, to the Port of Santos and to the State of São Paulo's Inland.
- Tiete Paraná waterway: at 100 km, Goiás, Paraná, Argentina, Bolivia, Paraguai, Uruguai, Minas Gerais and Mato Grosso do Sul, allow for maritime commerce

All Level Education

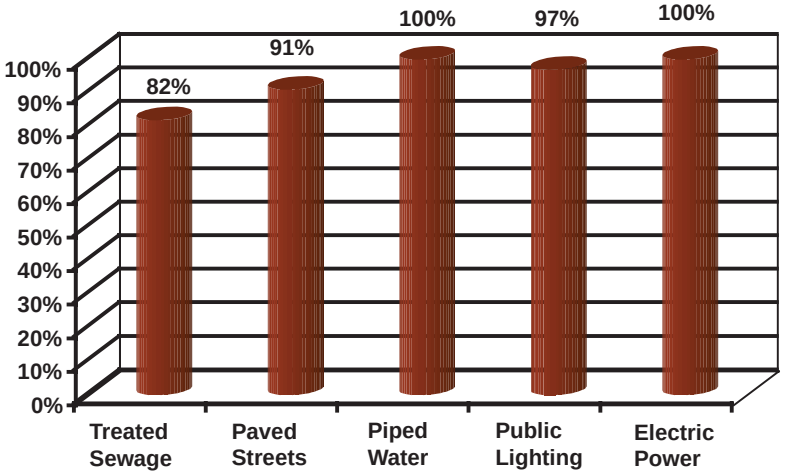
- 291 pre elementary institutions
- 270 elementary schools
- 126 secondary schools
- 13 college institutions
- 3rd highest number of newspaper readers
- Largest concentration of R&D institutions in Brazil's inland
- 19% of the population has college degrees
- Unicamp is the 2nd largest INPI patent holder
- Campinas is the Brazilian leader in overseas registered patents

Campinas

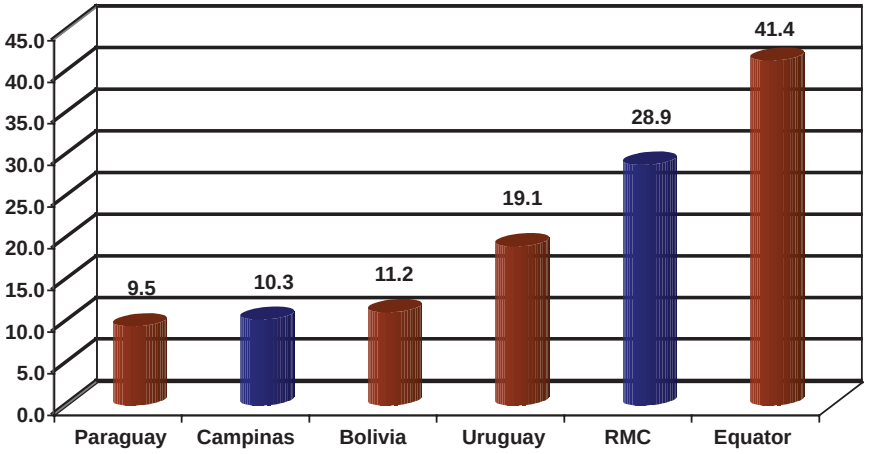
Economic Sector



1st World Infrastructure



GDP
GDP US$ bi (2006)



Safety

- 300 surveillance cameras
- Municipal Guard: 735 guards
- Military Police: 3.000 men/women
- Police: 745 policemen/women

Technologic Hub

- CTBE – Bio-ethanol Science and Technology Center
- CIATEC –Development Company of High Technology Pole of Campinas
- CATI – Attendance Coordinator of Integral Technical Assistance
- CENPRA – Renato Archer Research Center (CTI – IT Center)
- Wernher Von Braun Advanced Research Center
- Cesar Lattes Nano science and Nanotechnology Center
- CPqD – Telecommunications Development and Research Center
- Codetec – Technologic Development Company
- EMBRAPA – Brazilian Company for Farming and Livestock Research
- IAC – Campinas Farming Institute
- IB – Biologic Institute
- Eldorado Research Institute
- ITAL – Food Technology Institute
- IZ – Zoology techniques Institute
- LNLS – Light Synchrotron National Laboratory
- Softex – National Software Program for Exportation
- Trade Point – Foreign Trade Center
- UNIEMP – University Company Relations Permanent Forum

Relevant Events

- About 6.000 events yearly, with two million participants
- 244th world ranking and 6th national ranking in reference to the cities that receive the greatest number of events
- Book Biennial
- International Theater Festival
- Cultural, antiques and handcraft fairs
- Sport events: national and international
- Corporative events

Foreign Representations

- Consulates: Chile, Equator, Spain, France, Guinea – Bissau, Haiti, Italy and Portugal
- Representations: China, Israel e Japan
- Chambers of Commerce: United States and Italy

Outstanding

- Best city to work in, among Brazil's inland cities (FGV/Você S/A magazine)
- Brazilian leader in patent registers abroad (INPI)
- Greatest R&D centers concentration in the Country, after Sao Paulo
- 2nd city in the number of bank agencies per 10.000 inhabitants (IBGE)
- The Country's 5th best urban infrastructure (Simonsen/Exame)
- Among the ten Brazilian cities that generate the highest number of jobs (Caged-MTE)
- 11th biggest GDP (IPEA)
- Largest cargo airport in Latin America (Infraero)
- UNICAMP – one of the three best universities in Latin America (The Times Higher Educational Supplement)
- One of the two greatest technologic poles of the South Hemisphere (Wired)

Public management economic development inductor in partnership with private initiative

Real Estate Potential

- High Speed Train – TAV
- Viracopos Airport Hub – VGV: R$ 15 MM
- City Center – VGV: R$ 5,5 MM
  - Central Area – utilization of inner side of blocks
  - Vila Industrial – Urban Revitalization and Renovation
  - Station Theater
  - Cultural Space
  - Teleport
  - Campinas Central Courtyard
  - Requalification of the Urban Center
- Singer Logistic Park – Entrepreneur Axis
- Campinas High Technology Park – CIATEC II – 7,9 MM m_
- Anhanguera Hub
  - Campinas Multiuse Arena and Exhibition and Convention Center

Financing Caixa Econômica Federal - Projects My House My Life

Goals

- 14% Housing deficit reduction
- Job and income generation

Family income range	Number of units
0 a 3 ms	400 mil
3 a 6 ms	400 mil
6 a 10 ms	200 mil

Source: Caixa Econômica Federal

SR Campinas Proposals received

Income	Empl.	UN. (mil)	VGV (MM)
6 A 10 MS	43	7	771
3 A 6 MS	25	6	564
0 A 3 MS	35	14	7701
Total	103	28	2.105

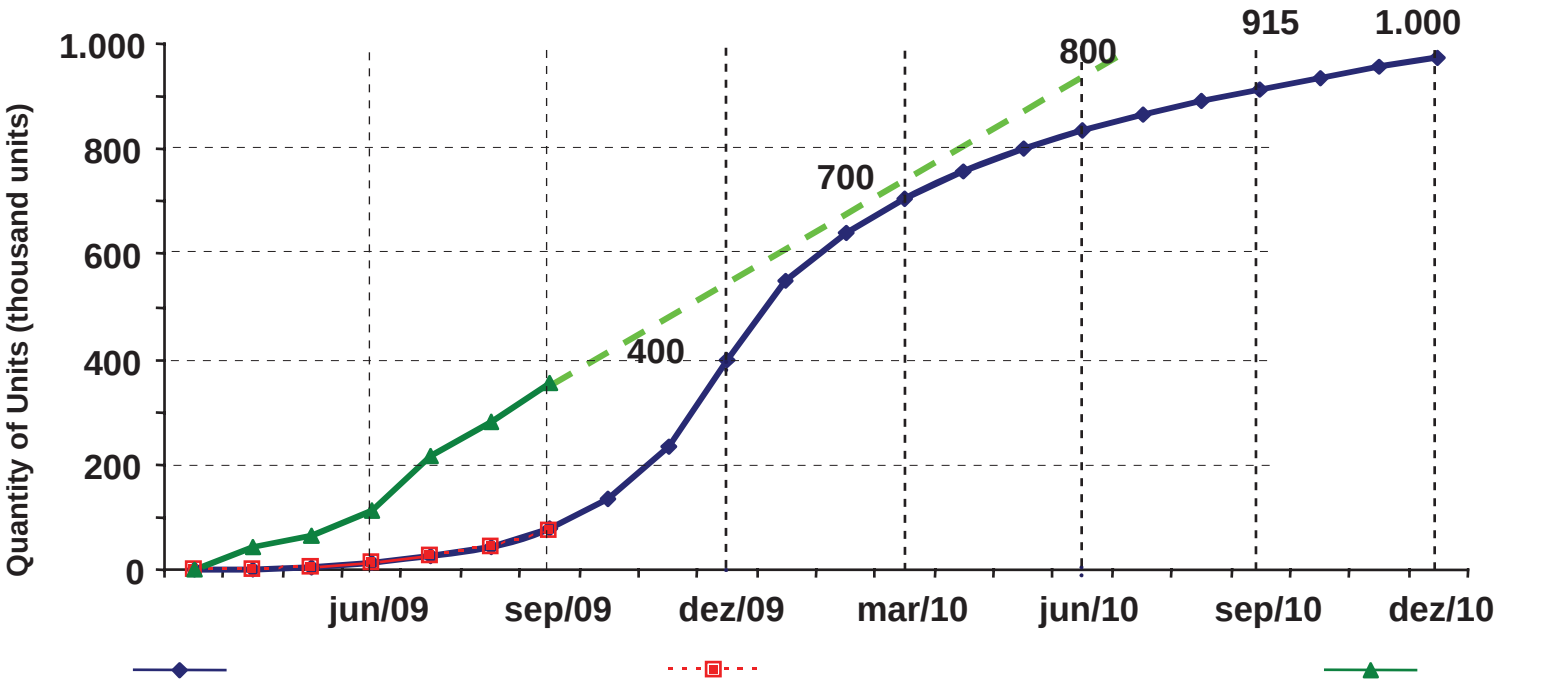
Position: 21/10/2009

SR Campinas Contracted Enterprises

Americana	2	496	57
Campinas	4	624	49
Cosmópolis	1	230	10
Indaiatuba	1	306	46
Jaguariúna	1	108	12
Paulínia	1	112	12
Sta B. D'Oeste	1	24	2
Sumaré	1	320	24
Valinhos	1	271	24
Total	13	2491	241

Financing Caixa Econômica Federal - Projects My House My Life

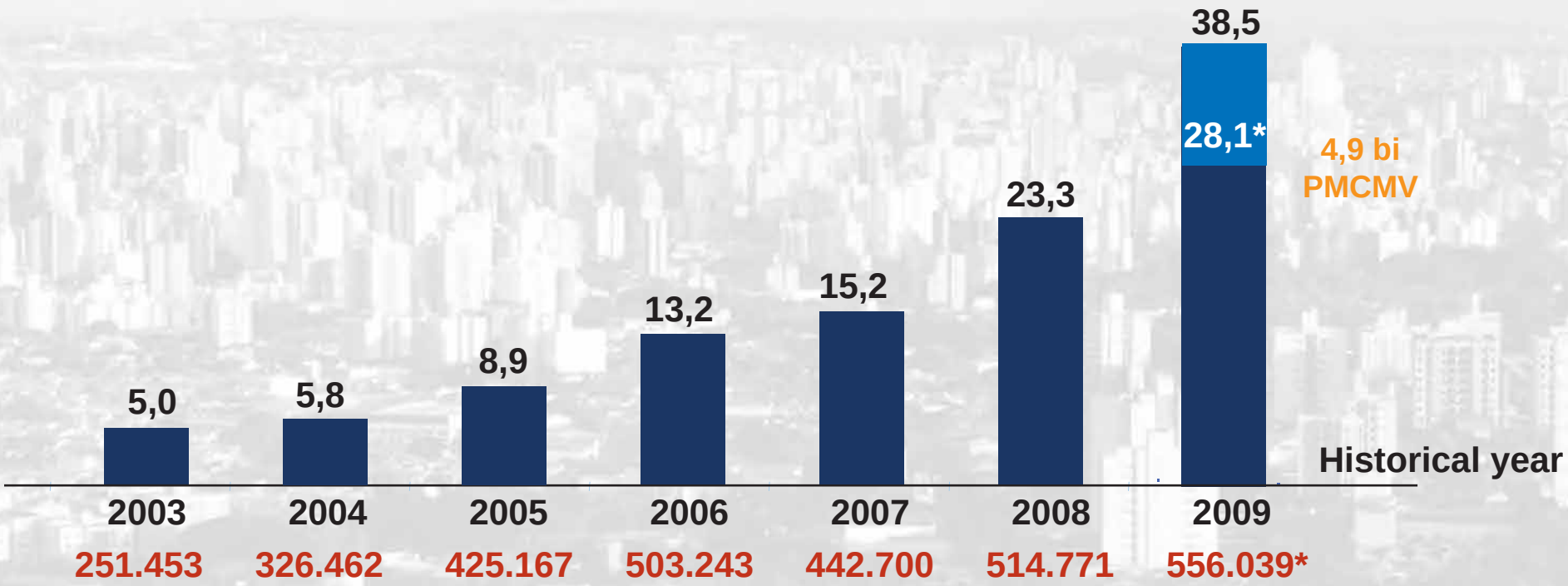
It is possible to achieve the goal of 1.000.000!!!!



SITUATION	Aug/09	Sep/09
Forecast	45.206	77.968
Contracting	43.891	75,424*

PROPOSAL	Enterprise	units
Received	1.843	353.380
Under negotiation	549	132.225

Housing Financing Contracting**
(R$ Billions)



Contracted units

Source: Caixa Econômica Federal
** after september/09*
*** It does not consider onlanding*

Civil Construction Project Approval Diagnosis

Attribution – Function / SEMURB in charge of the urban control and disposition

- Land
- Space
- Urban Space and Landscape

Lawfulness

- City Statute
- Master Plan
- Local and Management Plan
- Division Legislation and Land Use
- Environment Statute
- Councilmen Statutes and Building Use

Context

Protocol complying system SEMURB

140 thousand processes / year turned in to SEMURB

Project Classification:

Group 1 – Small Amount

– Semurb Express

– Certificates

– Permit
- Use and Occupancy of the Soil
- Publicity
- Events

Group 2 - Complex

– Decon
- Land Division

Register
Guidelines

– Duos
- Edyllic Approvals

Housing
Commercial
Services
Institutional

Strategic Vision of the Development

Analyzed Date

- Mayor's Office
- SEMURB
- SEPLAN
- SMA
- FINANCES
- WORK AND INCOME (job generation)

Priorities
Celerity

Strategic Vision of the Development

Procedures Nomination and Classification

- Blue" File Special Projects – blue stamp priority 1
- Projects My House My Life – orange stamp priority 2 (30 to 35 days - approval)
- Urban Plans – special attention
- Special Projects

  Mayor's Office (Origin)

  Semurb / Seplan – (Development)

  Speeding up Management – Graprohab

Constructive Potential in Campinas

Use of the soil	Area (m^2)
Commercial, services and institutional	13,080,000
Industrial	8,350,000
Technologic	5,500,000
Housing	24,720,000
Logistic	21,900,000
Total	73.550.000

General summary of My House My Life entrepreneurs

APPROVED	RANGE OF COMPLYMENT	UNITS
	0 – 3 S. M.	5.337
	3 – 10 S. M.	10.481
	TOTAL APPROVED	15.818

UNDER ANALYSIS	0 – 3 S. M.	14.693
	3 – 10 S. M.	8.639
	TOTAL OF ANALYSIS	23.332

Approval speed: 15,818 housing units from April to October (7 months) or 2,259 per month

Approval and Execution Licenses

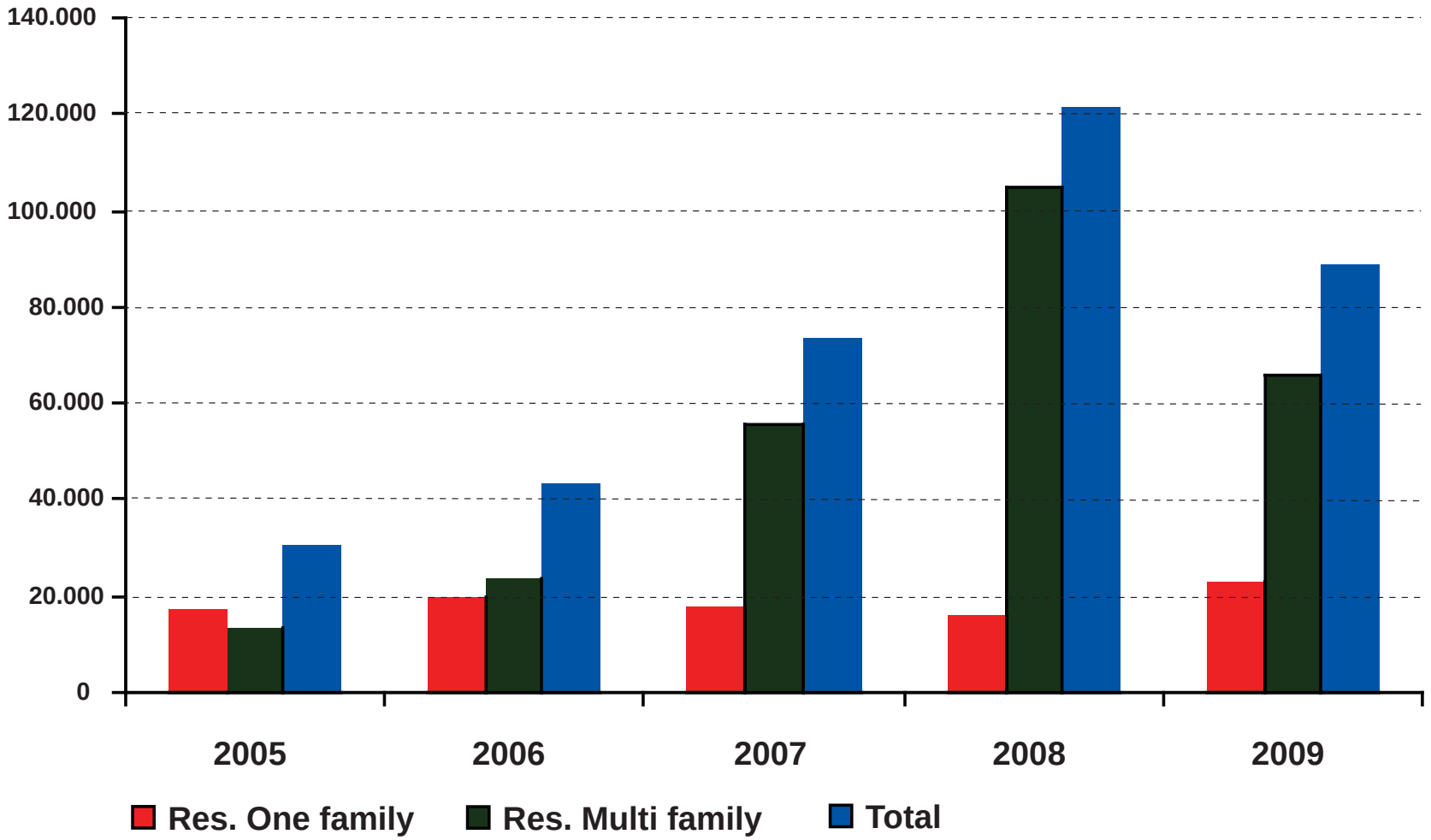
Years	Monthly Average (m^2)			
	Res. One family	Res. Multi family	Total	Variation Index
2005	17.212	13.257	30.469	100
2006	19.816	23.421	43.237	141
2007	17.798	55.554	73.352	240
2008	16.099	105.113	121.212	397
2009	23.254	65.869	89.123	292

Approval Time:

- One family Homes – SEMOX EXPRESS: in 24 hours;
- Multi family Homes: in 30 working days

Obs: Projects without hindrance

Approval and Execution Licenses



Users Reading and Propositions

Representations: Habicamp; Fiesp; Ciesp Campinas; Secovi Campinas; Sinduscon Campinas and AEAC

General Rule: critical users in reference to civil construction project approval.

Central Points

1) Availability for the society of geo-processing;
2) Questioning of the clearness of technical criteria used on Urban Plans;
3) Zoning Law (1989) calls ones attention, it was passed 20 years ago and needs modernizing, in order avoid disturbances;
4) Legislation EIHS - Law 10.410 – needs to adjust with My House My Life project;
5) Disclosure of technical criteria used in the Urban Plans for professional users.

Unban Guidelines, Specific Studies, Project Approvals, Activities and Internal Service Orders Licensing

Decree nº 14262/03 altered by Decree nº 14397/03 and internal service order – 01/04

http://www.campinas.sp.gov.br/bibjuri/dec14262.htm

http://www.campinas.sp.gov.br/bibjuri/dec14397.htm

Decree nº 14262/03 of March 19, 2003

Establishes Analysis Procedures for Defining Urban Guidelines, Specific Studies, Approval of Projects, Licensing of Activities, and supplies other provisions.

DECREES: Art. 1º - Demands concerning the use and occupation of land shall observe the procedures established in the present decree.

- SECTION I: Urban Guidelines and Revalidation of The Land Use and Occupation Guidelines
- SECTION II: do Dismemberment, Subdivision, Annexation and Modification of Glebes or Lots
- SECTION III: Approval of Street Construction Layouts and Land Division Projects
- SECTION IV: Approval of Building Projects
- SECTION V: Renewal of License Approvals and Requests for Execution Licenses
- SECTION VI: License for Demolition (partial or total) and Small Reforms (with no area increase)
- SECTION VII: License for the Authorization of Transitory Construction, Construction Site in a Different Property, Cellular Antenna, Sales Booth
- SECTION VIII: do Certificate of Construction Conclusion – “Habitation License
- SECTION IX: Activity Permit – Usage License
- SECTION X: Publicity Permit
- GENERAL DISPOSITIONS

Decree nº 14.397 21 OF August 2003

Alters Dispositions of the Administrative Regulations, concerning the Analysis and Approval of Urban Projects

Decrees:

Art. 1.º - articles 10 and 16 of the Municipal Decree nº 14.262, of march 19, 2003, are increased with the following paragraphs:

Art. 10 -...

"i)Tax Clearance Certificate.“

Art. 16 -...

"n) A.R.T. (Notation of Technical Responsibility- CREA)."

Art. 2.º - article 12, paragraphs “g” and “h” and article 17, both from the Municipal Decree nº 14.262, of march 19, 2003, now have the following wording:

Art. 12 -...

“g) Real Estate Security for the public improvements that will be executed by the entrepreneur in the land division, in accordance with the specific existing legislation, that must be tied to the construction timetable ;”

“h) Timetable for the constructions of public improvements executed by the entrepreneur on the land division, with a delay of up to 48 months, counted from the Construction Execution Term, tied with the implantation of the undertaking.“

“Art. 17 – When filed, the protocol w the traffic generating pole.”

Art. 3.º - article. 2º, §1º and §2º and art 4º, clause. I e II, and respective paragraphs of the Municipal Decree nº 12.039, of November 14, 1995 are integrally revoked.

Art. 4.º - This Decree enters in force on the date of its publication, revoking all disposition in contrary.

Internal Service Order - 01/04

ESTABLISHES: that the follow up of protocols, in accordance with the Decrees 14.262/03 and 14.397/03, shall attend the following procedures:

1- Approval of the planialtimetric survey without having to know urban guidelines.

2- Approval of the planialtimetric survey with interest in knowing the urban guidelines.

3- Specific Study – Enterprise feasibility study for undertakings for big projects occupancy HMV 5, HMV4, CSE 6, CSE, at Barão Geraldo, Z18 and APA.

4- Real Estate development approval.

5- Lot subdivision, annexing and modifying approval.

6- Glebe dividing, annexing and modifying approval.

7- Lots and glebes update registration approval.

8- Social Interest Housing Enterprise Approval - EHIS in lots.

9- Social Interest Housing Enterprise Approval - EHIS in glebe.

10 – Urban guidelines revalidation.

11- Soil use and zoning certificate.

Cadeia Produtiva da Construção/Construction Productive Chain

Sindicatos/Unions

Sindicato da Indústria de Artefatos de Metais Não Ferrosos no Estado de São Paulo – SIAMFESP; Sindicato da Indústria da Cerâmica de Louça de Pó de Pedra, da Porcelana e da Louça de Barro no Estado de São Paulo – SINDILOUÇA; Sindicato da Indústria da Cerâmica para a Construção do Estado de São Paulo – SINDICERCON; Sindicato da Indústria da Construção Civil de Grandes Estruturas no Estado de São Paulo – SINDUSCON/SP; Sindicato da Indústria da Construção do Mobiliário de Leme – SINDILEME; Sindicato da Indústria da Construção e do Mobiliário de Santa Gertrudes – SINCER; Sindicato da Indústria da Construção Pesada do Estado de São Paulo – SINICESP; Sindicato da Indústria da Extração de Minerais Não Metálicos do Estado de São Paulo – SINDEXMIN; Sindicato da Indústria de Aparelhos Elétricos, Eletrônicos e Similares do Estado de São Paulo – SINAEES; Sindicato da Indústria de Beneficiamento e Transformação de Vidros e Cristais Planos do Estado de São Paulo – SINBEVIDROS; Sindicato da Indústria de Chapas de Fibra e Aglomerados de Madeira do Estado de São Paulo – SINDIFIBRA; Sindicato da Indústria de Condutores Elétricos, Trefilação e Laminação de Metais Não Ferrosos do Estado de São Paulo – SINDICEL; Sindicato da Indústria de Esquadrias e Construções Metálicas do Estado de São Paulo – SIESCOMET; Sindicato da Indústria de Instalações Elétricas, Gás, Hidráulicas e Sanitárias do Estado de São Paulo – SINDISTALAÇÃO; Sindicato da Indústria de Lâmpadas e Aparelhos Elétricos de Iluminação no Estado de São Paulo – SINDILUX; Sindicato da Indústria de Mármores e Granitos no Estado de São Paulo – SIMAGRAN; Sindicato da Indústria de Material Plástico do Estado de São Paulo – SINDIPLAST; Sindicato da Indústria de Móveis e Junco e Vime e Vassoura de Escovas e Pincéis do Estado de São Paulo – SIMVEP; Sindicato da Indústria de Pinturas, Gessos e Decorações do Estado de São Paulo – SIPIGEDESP; Sindicato da Indústria de Produtos de Cimento do Estado de São Paulo – SINPROCIM; Sindicato da Indústria de Proteção, Tratamento e Transformação de Superfícies do Estado de São Paulo – SINDISUPER; Sindicato da Indústria de Serrarias, Carpintarias, Tanoarias, Madeiras Compensadas e Laminadas no Estado de São Paulo – SINDIMAD; Sindicato da Indústria de Tintas e Vernizes no Estado de São Paulo – SITIVESP; Sindicato da Indústria de Vidros e Cristais Planos e Ocos no Estado de São Paulo – SINDIVIDROS; Sindicato da Indústria e Mineração de Pedras Britada do Estado de São Paulo – SINDIPEDRAS; Sindicato das Indústrias de Calcário e Derivados para Uso Agrícola do Estado de São Paulo – SINDICAL; Sindicato das Indústrias de Cerâmica Sanitária do Estado de São Paulo – SINDICERAMICA; Sindicato das Indústrias de Extração de Areia do Estado de São Paulo – SINDAREIA; Sindicato das Indústrias de Produtos Cerâmicos de Louça de Pó de Pedra, Porcelana e da Louça de Barro de Porto Ferreira – SINDICER; Sindicato Nacional da Indústria de Máquinas – SINDIMAQ; Sindicato Nacional da Indústria de Trefilação e Laminação de Metais Ferrosos – SICETEL; Sindicato Nacional da Indústria do Cimento – SNIC; Sindicato Nacional das Indústrias Siderúrgicas – SNIS.

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A Construção do Crescimento Sustentável/Sustainable Growth Construction

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Catharina Parodi

São Paulo - 30 de novembro de 2009/São Paulo - November/2009

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