KFW ECONOMIC RESEARCH

Emerging Markets Spotlight

Brazil – needs to close the gap on world class infrastructure

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Economic situation

Real growth

Inflation

Consumer climate

An adverse combination of low growth and high inflation

The current pace of economic growth in Brazil, just short of 2 % year-on-year, is disappointing. And there is not much hope of any quick improvement either. Industrial output has been sending negative signals at the start of the year. The consumer climate deteriorated significantly in May continuing its decline since the start of the year after the jump in the previous month. At the same time marked inflationary pressure is forcing the central bank to maintain a restrictive course.

Growth financing

Private loans / GDP

Real effective exchange rate

Currency reserves / short-term external debt

Private sector debt continues to rise

The long-term upwards trend in the ratio of private loans to GDP continues. Over the last decade the Brazilian currency has appreciated strongly in real terms, which has harmed the country's ability to compete. This trend came to an end in early 2012, but the real exchange rate has been relatively volatile of late. Currency reserves are stable relative to short-term external debt, and comparatively large.

Growth resources

Investment ratio

Use of renewables

Patent and trademark applications

Adverse trend for investment and innovation activity

The investment ratio that is already low compared to other emerging market economies and dropped once more towards the end of last year after rising at the beginning of the second half of 2013. From a structural perspective, close attention should be paid to the use of renewable energy sources – where the country has so far been leading among the monitored economies – and development of R&D activities.

Economic relations with DEU

Share of DEU in goods exports

Share of DEU in goods imports

FDI inflows from Germany

Trade with Germany stable

Germany's share in Brazil's foreign trade has recently improved slightly. Brazil currently imports 6.5 % of its goods from Germany, but from a long-term perspective, Germany's importance is decreasing. Direct investment from Germany to Brazil is relatively subdued at present, and did not track the general rise during the fourth quarter of 2013.

Legend (for detailed explanation of methodology see p. 4)

very good	good	neutral	weak	very weak
much improved	improved	stable	worse	much worse

Investment climate: assessment of our local experts

The structural problems of the country are coming to the fore again because of weak economic activity. But much in the same way as the very positive outlook on the economy in recent years was exaggerated, the negative view at present should also be put into perspective, because the domestic market is large and the economy is able to recover quickly. That said, plans for improvement, e. g. in infrastructure, must be given time to have an effect and make up for long-term neglect.

Continued on p. 2

Focus topic: the transport infrastructure bottleneck

Infrastructure is criticised in many developing countries and emerging market economies. Compared to its stage of development, this is a particularly severe problem for Brazil. According to a study by McKinsey,[i] the value of the entire infrastructure amounts to 16 % of GDP – a far cry from the average figure of 70 % (India: 58 %, China 76 %, South Africa 87 %). At the same time the government is making considerable efforts to close the gap in investment, which includes involving private investors.

Continued on p. 2

Investment climate: assessment of our local experts

The Brazilian economy has huge potential. It has a huge domestic market and the rising level of development creates new groups of consumers with significant pent-up demand. Brazilian society is young, eager to spend and has a preference for brands. This explains the highly promising market segment for luxury goods. Once foreign companies have penetrated the extensive domestic market, they also have an opportunity to expand into other Mercosur countries. The stable framework for investors in Brazil make it a good base for business activity in the region.

However, the economy is plagued by notorious problems. Torturous bureaucracy including a complicated tax system, inadequate (transport) infrastructure and the rising debt of private households all hold back progress. Foreign companies require in-depth knowledge of Brazilian labour and taxation law to be successful, which if necessary they need to source locally. But this creates significant costs for local businesses too. Infrastructure was neglected for many years, and this causes major problems. However, the good news is that the Brazilian government is finally taking action in this respect, and indeed started before the FIFA World Cup and the Olympic Games were awarded. Two comprehensive programmes (PAC) have been launched. Although they are lagging behind with respect to implementation, this is the first step towards achieving improvements in infrastructure. Discussions are underway on whether to launch a third programme in 2015 after the second one is completed (2011–2014). The construction and logistics industries may be the first to benefit from these programmes.

Alongside transport infrastructure, the energy mix is in need of improvement too. There has been a drought since last year, which poses a threat to the energy supply that is heavily dependent on hydropower. The supply of energy had to be rationed in 2001 during a drought of similar proportions. Even though the high degree of hydropower used in generating energy has to be recognised from a sustainability perspective, Brazil requires a secure supply of energy to make further economic progress. Approaches in this respect should bolster the use of alternative energy sources, such as wind and solar energy. While a loss of prestige would possibly be the only consequence of a black-out in a stadium during the World Cup, disruptions to the supply of electricity for industry translate directly into losses of production.

Only if efforts succeed in lowering the "Custo Brasil" (high costs of doing business in Brazil, caused by the complex, bureaucratic, tax and legal regulations as well as infrastructure problems, etc.) will the country become more appealing as a place to do business. Overcoming the structural reasons for this takes time. But even a credible announcement of relevant measures by the government – which will be responsible for economic policy after the elections in the autumn – should help here. Of course, the best thing would be to start immediately with the reforms and dismantling the bureaucratic barriers.

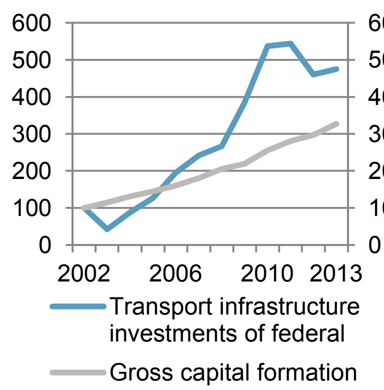
■ Based on an interview from 28th May 2014 with Mariana Bormann (DEG Office Director, Brazil)

Focus topic: no alternative to investing in transport infrastructure

Huge distances have to be covered in Brazil. Roughly 8.5 million km^2 in size, the country is almost 24 times bigger than Germany. The metropolitan areas are concentrated on the eastern and southern coasts, and the road network covers 1.6 million km making it the fourth largest network in the world. That said, only about 14 % of the roads are paved, which is one indication of the infrastructure problems that Brazil faces. The road network is complemented by a roughly 30,000 km rail network, 37 public ports and 270 airports, mostly regional. This infrastructure not only has to be maintained, but also improved and expanded, as revealed both by local surveys and international rankings such as the Global Competitiveness Index (quality of general transport infrastructure, Ranked 114 out of 148).

Division of labour and foreign trade require adequate opportunities in goods transportation, even if the significance of infrastructure for economic growth is not yet unambiguously quantified. Infrastructure is important because commodity exports represent one of the pillars of Brazilian economic growth. High transport costs caused by inadequate and overburdened infrastructure reduce competitiveness in global markets. For example, logistics costs are estimated at 11–12 % of GDP compared to 8 % in the USA.[ii]

Figure 1: Investment
[Index 2002=100]



Source: CNT, IBGE, author's calculations.

Infrastructure is reliant on public-sector investment. In the mid-1970s, public investments in transport infrastructure by the federal government accounted for 1.84 % of GDP. Such an elevated figure has never been reached again. After bottoming out in 2003, an encouraging upwards trend took shape relative to total gross fixed capital formation, but this petered out again in 2010. Accordingly, investment in transport infrastructure by the federal government reached only 0.27 % of GDP in 2013.[iii]

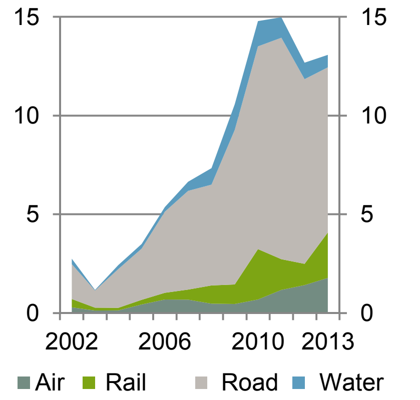
Even before the recent weak growth performance, the government increased its efforts to improve transport infrastructure. In 2007 the PAC 1 growth programme was announced with 81.6 billion reais earmarked for logistics projects until 2010, followed by PAC 2 in 2011 with approximately 104.5 billion reais for rail and road infrastructure by 2014.[iv] Alongside these long-term programmes, the measures preparing for the Fifa Word Cup 2014 are designed to alleviate bottlenecks in the short term, especially with respect to air transport and urban transport infrastructure. These investments are also very welcome.[v]

Besides the insufficient amounts invested, the implementation of the programmes and the breakdown of tasks represent a problem. With PAC 1 for example, roughly 80 % of the funding earmarked for logistics projects was invested by the end of the programme in 2010. With PAC 2, only 42 % of the corresponding funds were invested in completed projects by the end of 2013.[vi] What is more, investment by the federal government is concentrated on roads. This is understandable for historical reasons (transport by road has dominated since the 1960s) and because of the maintenance required for the extensive road network. In comparison to other large countries, however, rail transport is severely underdeveloped. This impacts the country's competitiveness, because transportation by rail and waterway would be more efficient than by road, especially for carrying high-volume goods over long distances.

There is no sign as yet that the infrastructure programmes could cause the construction sector to overheat. Although real added value has grown more quickly in this sector than in the transport sector and when compared to total added value since 2007, taking a longer-term perspective both sectors have only recently made up for their below-average performance from the early years of the new millennium. The construction industry's share of nominal added value totals 5.4 %, which is even lower than in 1996 (5.7 %).

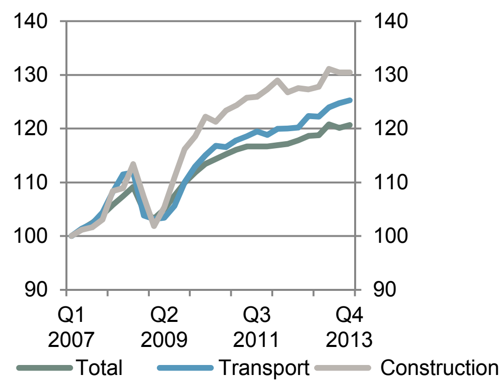
Since public infrastructure expenditure is not sufficient to close the investment gap, Brazil is starting to involve private investors, partly with new approaches, e. g. awarding licences for toll roads in auctions, privatising airports, an open access model for rail transport, PPP for urban transport and deregulating the ports industry.[vii] If this is successful, the current 3C growth model (*credit, consumption, commodities*) will be realigned and the infrastructure bottlenecks in supply will be reduced. This means the IMF could lift its potential growth estimate back up from 3.5 to 4 %, and the growth rate would no longer lag behind its long-term average of just under 3 %.[viii] ■

Figure 2: Infrastructure investment by federal government
[in BRL billion]



Source: CNT, author's calculations.

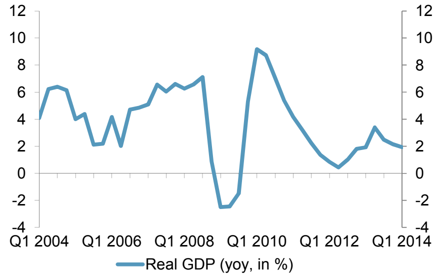
Figure 3: Added value
[Index Q1 1996 = 100]

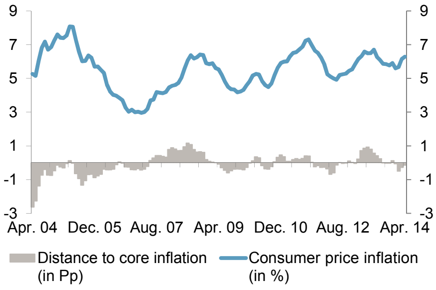


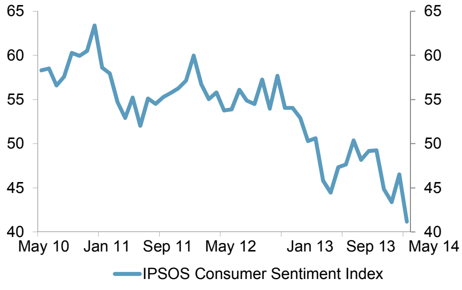
Source: IBGE, author's calculations.

Overview of figures

Economic situation

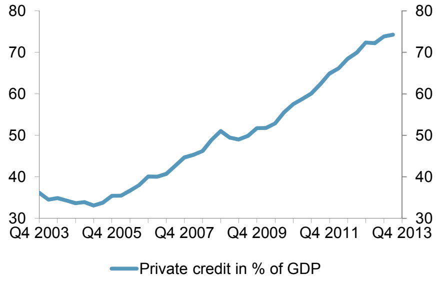


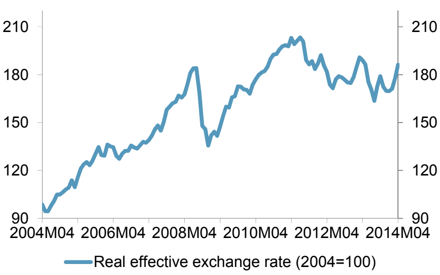




Source: Datastream; OECD, IBGE, Banco Central do Brasil, Thomson Reuters IPSOS; authors' calculations.

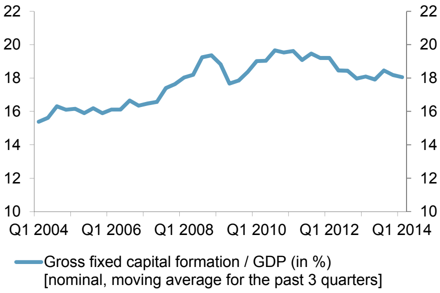
Growth financing

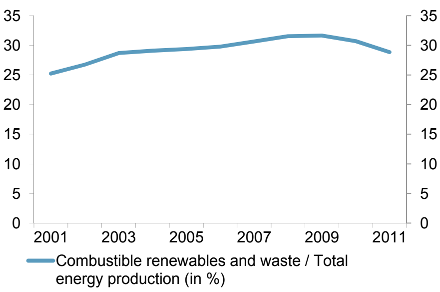


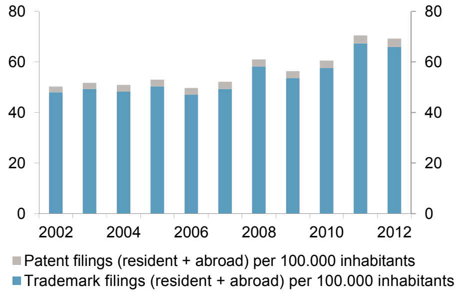


Source: Datastream; IMF, World Bank; authors' calculations.

Growth resources

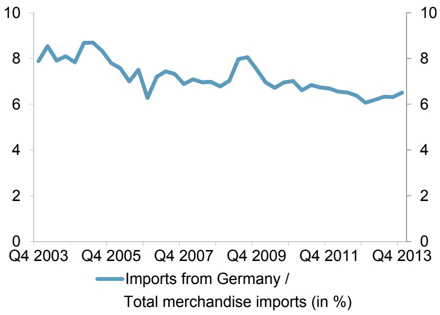


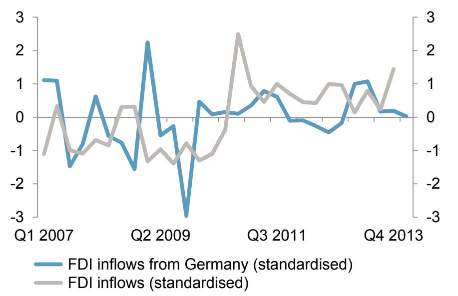




Source: Datastream; IBGE, World Bank; WIPO; authors' calculations.

Economic relations with DEU





Source: Deutsche Bundesbank; Datastream; IMF, OECD; authors' calculations.

Methodology

In the Emerging Markets Spotlight, a selected country is analysed based on various macroeconomic indicators. These indicators are grouped into four categories: economic situation, growth financing, growth resources and economic relations with Germany.

Firstly, the development of the indicators over time is examined for the country itself. As a rule, the analysis is based on the last ten years. The direction of arrow is determined by the current change in comparison to the previous period. An improvement in the indicator is shown with an arrow pointing upwards, while a deterioration is shown with an arrow pointing downwards. A horizontal arrow indicates that the variable is practically unchanged. For example, a higher inflation rate compared to the previous period signals a deterioration, and – depending on the extent of the change – is labelled with an arrow pointing diagonally or straight downwards. The magnitude of the absolute change compared to the average historical absolute change determines the extent of the change and therefore the direction of the arrow.

- ⇧ Strong improvement in the given indicator: > 3/3 of the historical absolute change
- ⬀ Improvement in the given indicator: 1/3 – 3/3 of the historical absolute change
- ⇨ Slight change in the given indicator: <1/3 of the historical absolute change
- ⬂ Deterioration in the given indicator: 1/3 – 3/3 of the historical absolute change
- ⇩ Significant deterioration in the given indicator: > 3/3 of the historical absolute change

Secondly, the indicators are used to compare the country's situation with its peers. The group comprises Brazil, China, India, Indonesia, Mexico, Russia, South Africa and Turkey. The comparison is based on a quintile ranking in five categories, which are labelled in different colours:

Quintile 1
Quintile 2
Quintile 3
Quintile 4
Quintile 5

The country is assigned to a quintile of the country group for each indicator analysed. The best quintile may be different for each indicator. For example, higher growth rates are better, so here the upper quintile is coloured dark green, but higher debt rates are a negative factor, so here the upper quintile is coloured dark red.

Disclaimer

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[i] Dobbs, R. et al. (2013), Infrastructure productivity: How to save $1 trillion a year, McKinsey Gobal Institute, McKinsey Infrastructure Practise.
[ii] Savaris, B. et al. (2013), The Brazilian Infrastructure: It's "Now or Never" From an Economic Growth Constraint to a Plethora of Opportunities, Credit Suisse Securities Research & Analystics.
[iii] CNT (2014), Os desafios do transporte: 2013–2014, Economia em foco, Januar 2014.
[iv] Muniz, M., O Modelo de Gestao PAC und I. Loudiyi (2011), Brazil Announces Phase Two of the Growth Acceleration Program, World Bank blog.
[v] Author's calculations based on Ministry of Finance (2013), Infrastructure in Brazil, Projects, Financing instruments, opportunities, February 2013.
[vi] Author's calculation based on Governo Federal Brasil, PAC, Balanco 4 Anos 2007–2010 and Governo Federal Brasil, PAC2, Ano 3, 9. Balanco 2011–2014.
[vii] Savaris, B. et al. (2013), The Brazilian Infrastructure: It's "Now or Never" From an Economic Growth Constraint to a Plethora of Opportunities, Credit Suisse Securities Research & Analystics.
[viii] Author's calculation based on Banco Central do Brasil; IMF (2013), Staff Report for the 2013 Article IV consultation, IMF Country Report No. 13/132.