

FCL*Capital*

November | 2017

Thesis: HDFC Bank

A tale of three urbanization stories.

Around the 1960s and 1970s, an air of optimism was engulfing Brazil. The country's GDP was growing at sustainable rates of 6%-7% yearly and its citizens deeply believed Brazil was on its way to become an economic superpower. This period is still known in Brazil as the "economic miracle".

Suddenly, the miracle ended with apparently no easy explanation and Brazil has, for the past few decades experienced mediocre economic growth.

Chart 1: Brazil GDP 1960's and 1970's

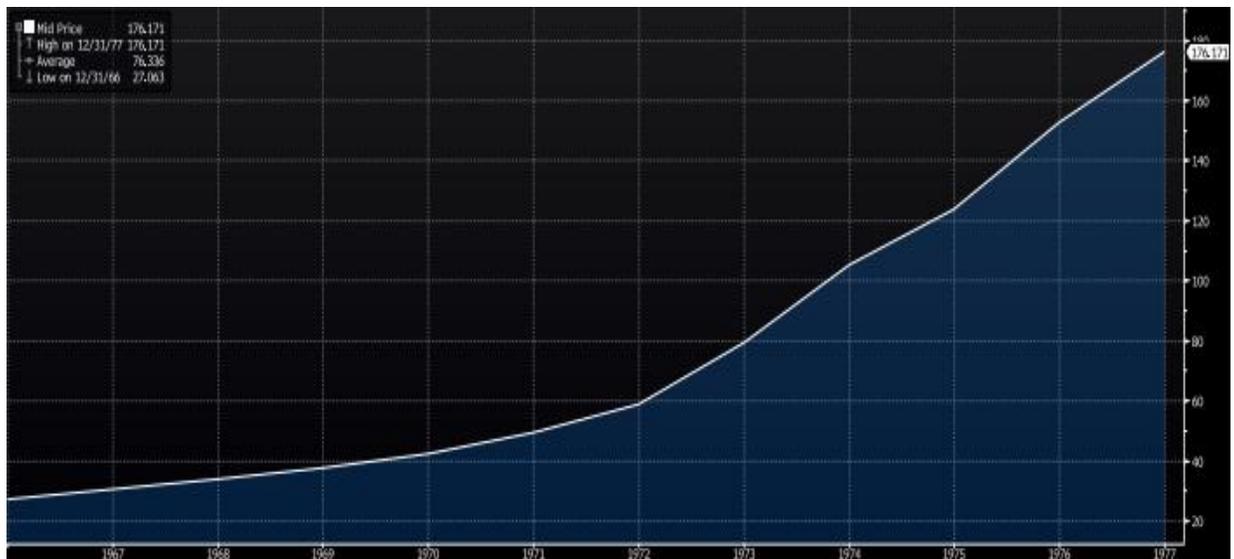
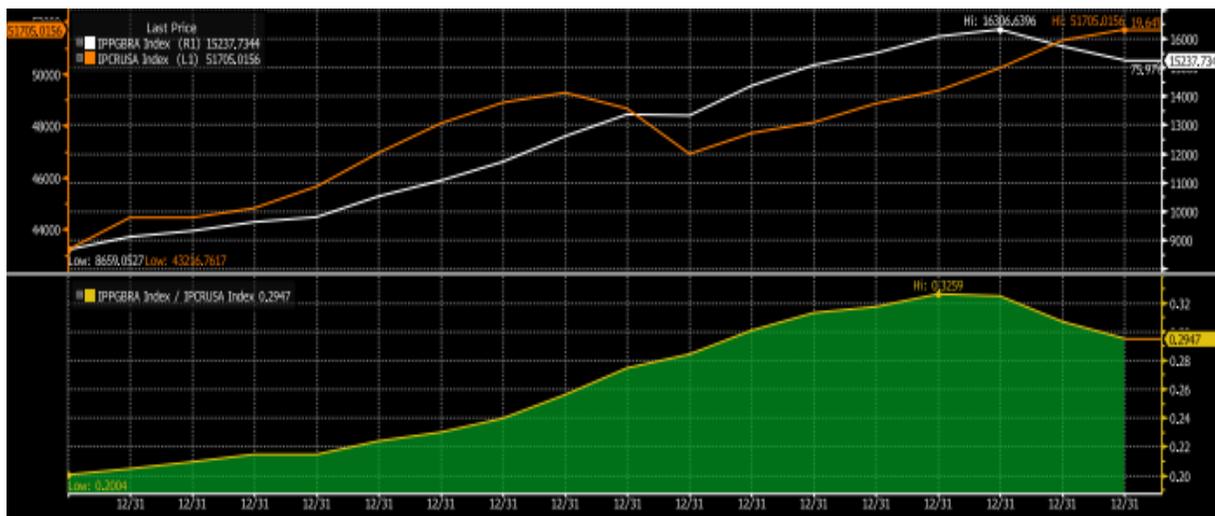


Chart 2: GDP % Brazil / USA 2000-2017



Economic development follows some reasonably predictable patterns. First, when GDP per capita is low and most people still live in rural areas, economic progress is relatively simple – as long as there are manufacturing or service jobs in cities or even informal economy posts, people will want to move out of rural areas, move to cities and its greater dynamism and opportunities to increase their income.

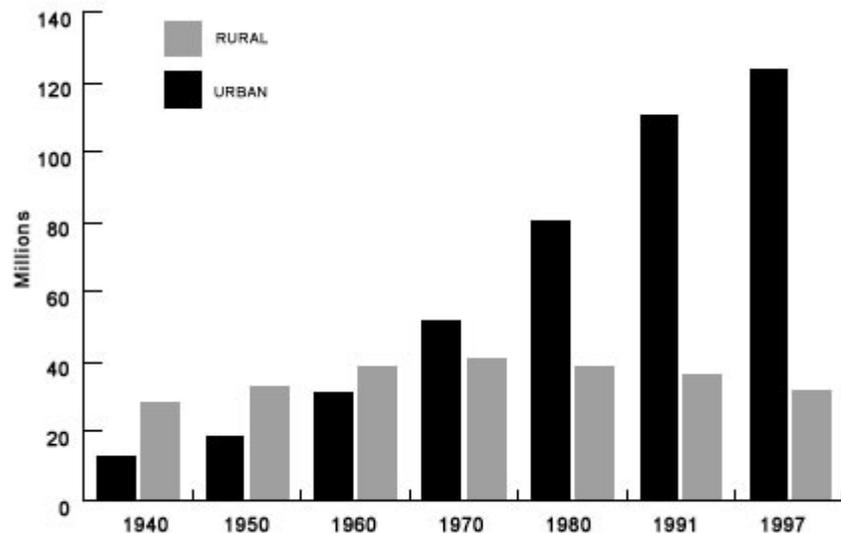
As a group, these internal migrants will become more productive in this more dynamic economic environment and increase their country’s productivity and GDP.

Then, as urbanization reaches its natural limits, development becomes more complicated and starts to depend on the country’s institutions, business environments, business friendliness and so on.

That’s what happened to Brazil during the 1960s and 1970s, the country was on a dramatic urbanization spree. No wonder its economy was booming. Then, as its effects petered out, it was

clear that Brazil didn't have what it takes to become a developed country, its red tape, high taxes and sclerotic business environment are well known. While smart investors and businessmen certainly can find opportunities in the country, Brazil's institutions and business environment ensured that in the following decades the country would unfortunately become the poster child of what is known as the middle income trap: a country not so poor that a simple urbanization would suffice to cause growth and also not on its way to developed status.

Chart 3: Growth of Urban and Rural populations in Brazil



Source: IBGE, Anuário Estatístico, 1997

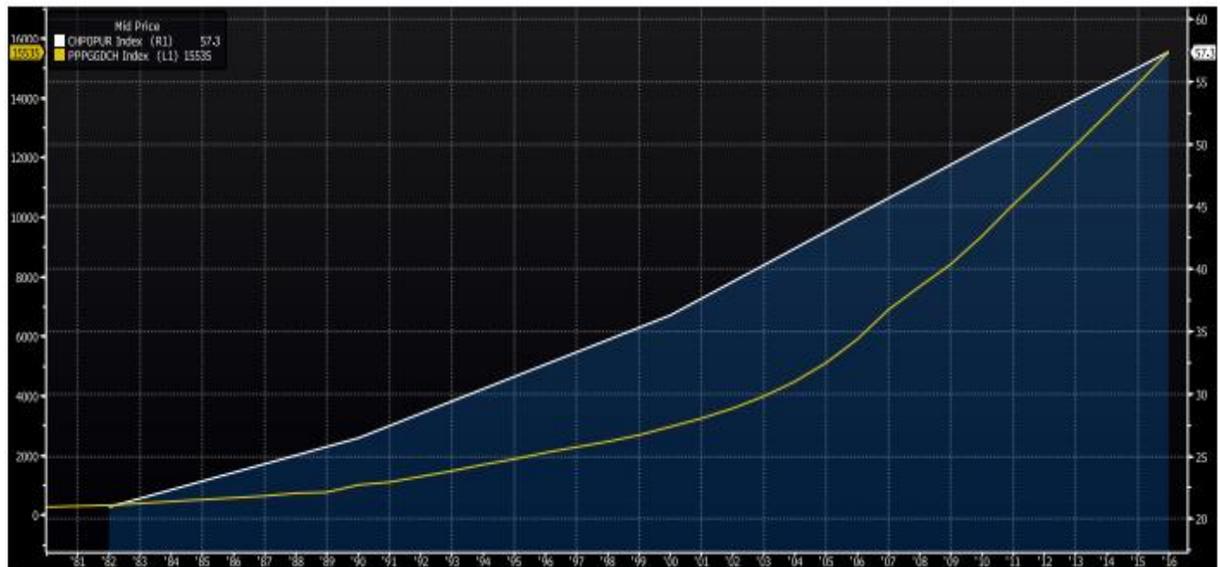
China

China is, in our opinion, the complete opposite of Brazil: despite a different culture and political system, from the ground up an astute observer can attest that its politicians plan long term trends and by and large, over the past few decades, were able to reach its goals.

While no society is perfect, Chinese people are completely entrepreneurial and so many important milestones are being reached at the same time that many investors don't even notice: China already boasts almost as many "unicorns" (tech companies valued at more than US\$ 1 billion in private markets) a larger GDP than the US when measured at Purchasing Power Parity, and even more importantly, it is starting to dominate crucial sectors where the 21st century economy will be played, like mobile platforms, artificial intelligence and e-commerce.

In other words, we believe China will become not only the largest economy on the planet but a developed nation and this fact may be the most important economic aspect of our lifetimes.

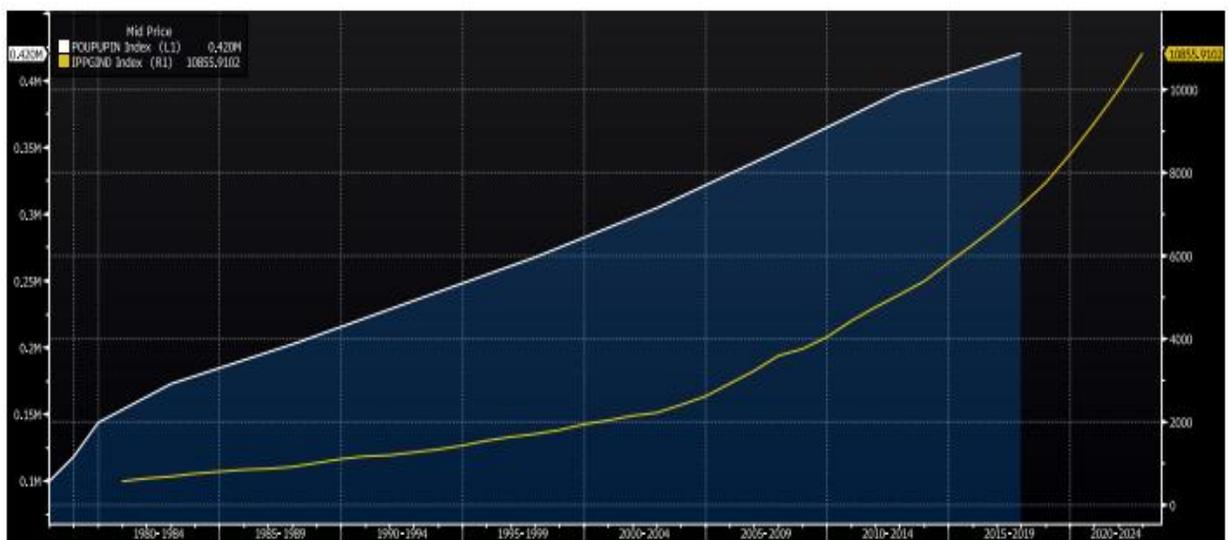
Chart 4: China urbanization ratio and GDP per capita past 20 years



The second most important economic aspect of our lifetimes may be the country where HDFC is hosted. First, we will be frank; we also think that India will face a middle income trap down the road.

It's business environment is notoriously as difficult, if not more, than Brazil's. It's people have not shown, over the centuries the same level of entrepreneurship the Chinese have. The fact that it is a democracy and not a centrally planned autocracy like china, certainly brings many advantages to its population, but also makes its urbanization process slower, more chaotic and more uncertain than China's.

Chart 5: India urbanization ratio and GDP per capita past 20 years



That being said, this fact is not material to our thesis. India is decades behind China and Brazil in its urbanization process. This means that, while the country is certainly poorer than its fellow BRIC members, it also means that it still has two or three decades of fast growth ahead until it reaches its own middle income trap (bearing in mind that obviously such an outcome is never inevitable for any country. Countries and its systems can and do change)

A second stunning conclusion: even if India reaches a middle income trap a few decades down the road at, say, Brazil's current level of GDP per capita, around \$ 12000, this would certainly be a disappointment to many, but it would also mean that, thanks to its enormous population, India's economy would have already reached the same size of today's US economy.

Bear in mind, GDP is nothing more than number of workers times the amount produced by each worker. Having a population four times larger than the US mathematically means that if each Indian worker reaches just a fourth of the productivity of an American worker, its economies would be equal in size.

Such is the promise and the wasted opportunity of the Indian economy. Certainly few countries carry as much history, beauty and promise. But also, India has certainly done a great job of wasting opportunities in the past.

As China goes from middle income (i.e. Brazilian levels of development) to developed country status, it will shake the world. But almost as important, as India goes from poor country status to middle income status, due to its enormous size, this simple transition will also be responsible to reshape the 21st century in many ways and make fortunes down the road.

But first, a little context on the Indian banking sector and HDFC.

HDFC and the Singh reforms.

The 90's brought with them many eventful circumstances. As the Berlin wall fell, the world was exploring its own new possibilities and limits.

Meanwhile, many countries were in turmoil since their economies were based in a world order that had simply vanished overnight.

The Soviet Union, as we all know, collapsed. China was lucky to have had embarked on the Deng Xiaoping reforms a decade

earlier. Eastern Europe was torn between its soviet influence on one side and Europe on the other.

Meanwhile, India was an economy in crisis. Not only its economy was heavily planned, with clear Marxist influences but the country was at an unlucky time due to high oil prices. On July 1991, due to this turmoil, the country's then finance minister, Mohamed Singh (who would later be India's prime minister) passed a budget with many important reforms like opening up the economy in some sectors to foreign competition, floating the currency, and crucially for the purpose of this thesis, liberalized the financial sector.

His courage was vindicated: from a country mocked to exhibit the "Hindu rate of growth", India became a story of promise and since then has averaged around 6% annual GDP growth, albeit from a low base.

From this opening came HDFC, one of the first private banks in India and still, by far, the best managed of its group.

HDFC was founded in Mumbai, India's business capital, in 1994. Its story is beautifully captured in a book this house recommends to our readers: "A Bank for the Buck" that can easily be bought on Amazon.¹

HDFC as a group began even before its liberalizing reforms, when its chairman, Hasmukh T. Parekh observed that many Londoners had mortgages, something almost unheard of in India and could therefore own their own homes.

¹ https://www.amazon.com/s/ref=nb_sb_noss/130-4720385-0407929?url=search-alias%3Ddigital-text&field-keywords=bank+for+the+buck

Since this time, HDFC is heavily associated with what remains its main product line: mortgage financing for home purchases in India.

Soon after the bank also began offering personal and auto loans and tied itself to the growing economic engine that is India.

There are few companies this house can think of that sit above so many positive secular trends:

Megatrends for HDFC

1) Economic growth

As we all know, banks are very sensitive to economic growth. One reason they tend to have lower valuation is this sensitivity. While they suffer when the economy crumbles, they are among the main beneficiaries when there is fast economic growth since there will be demand for loans, mortgage and corporate credit. India, as we known, will probably enjoy decades of high speed growth ahead.

2) Urbanization and population growth

India, unlike other major economies, still has a rapidly growing population which in turn brings family formation and demand for houses and home loans. At the same time, a greater proportion of the population is moving to urban and semi urban areas, bringing increasing income and demand for new homes.

So all in all, this sector should keep growing significantly more than India's fast growing economy.

Chart 6: HDFC ASSETS (year end in trillion of rupees)

2015	2016	2017
6.070	7.622	8.923

3) Nuclear families

India consumers have not only increasing incomes but the country, with its development, is becoming more westernized and urban. Castes no longer matter as much as they once did. Many people now change cities and move for jobs. One consequence is that families are becoming more nuclear, in a similar way as families from Europe or North America and this also brings additional demand for home loans since the average number of people per residence should keep dropping.

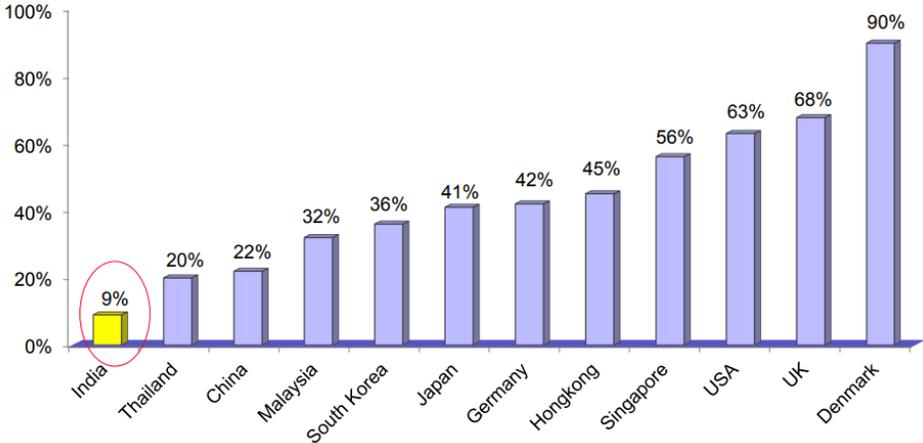
Chart 7

Favourable Demographics	▶ 66% of India's population is below 35 years of age, hence large potential for home loans
Households	▶ Rise in the number of households with a shift towards nuclear families
Rapid Urbanisation	▶ Currently 32% of the Indian population reside in cities; estimated to be 40% by 2030
Improved Affordability	▶ Improved affordability through rising disposable incomes and affordable interest rates on home loans
Fiscal Incentives	▶ Tax incentives on interest and principal amount for home loan borrowers
Flagship Govt. Schemes	▶ Housing for All by 2022: Interest rate subsidy under Credit Linked Subsidy Scheme widened to include middle-income groups
Budget 2017-18	▶ Incentives to developers to build affordable housing, 'infrastructure' status accorded to affordable housing, increased allocations for home loan refinance
Regulator	▶ Real Estate (Regulatory & Development) Act, 2016 to bring greater transparency and discipline in the sector
Enhanced Funding Sources	▶ ECBs for affordable housing, masala bonds and enhanced investment limits of insurance companies and mutual funds investing in high rated Housing Finance Companies

4) Mortgage and financial products penetration. Access to banking.

As people move to cities, and gain in income and wealth, they start to have access to products and services they didn't before, in a process very similar to what happened to Brazil, China and countless other markets.

Chart 8: Mortgage Penetration



Source: European Mortgage Federation, HOFINET & HDFC estimates for India

The best in class: valuation and perspectives

Chart 9: Numbers HDFC vs ICBC

	HDFC	ICBC
EST P/E 2018	26.35	17.75
Avg ROE past 3 years	19.13%	12.75%
Gross NPLs	1.14%	7.20%
Return on assets	1.84%	1.07%

Anywhere you look, HDFC is the best managed private bank in India. To know the reasons behind this assessment, some perspective is in order.

As many of our readers know, in 2014 India elected the reformist Narendra Modi, from the Barhathiya Janatha party (BJP) as prime minister.

Even after a quarter of a century of reforms, India remains a very statist economy. Among its chronic problems, were a very efficient and provincialist tax code, that pushed firms to informality, and a chronic and sclerotic banking system, where a system that is still 70% in state hands, keeps rolling bad debts to politically connected “zombie” companies, in the name of stability, personal relationships and job security.

Both of these problems are being addressed. A new tax law that was passed last year, even with its inevitable flaws, should give a push to the formalization the economy is experiencing.

Meanwhile, the banking system is starting to shake itself up. Old relationships and bank credit lines are being reviewed and it is expected that over time the private sector should keep gaining market share.

HDFC is the second largest private sector bank after ICBC but with a different product mix that traces back to its roots as a home loan provider.

Over time, HDFC has shown greater consistency, faster profit growth and higher ROE than most of its competitors.

Even more important: HDFC is among the few banks without a deep bad loan problem that should cripple its growth in the next few years

Chart 10: India GDP this decade

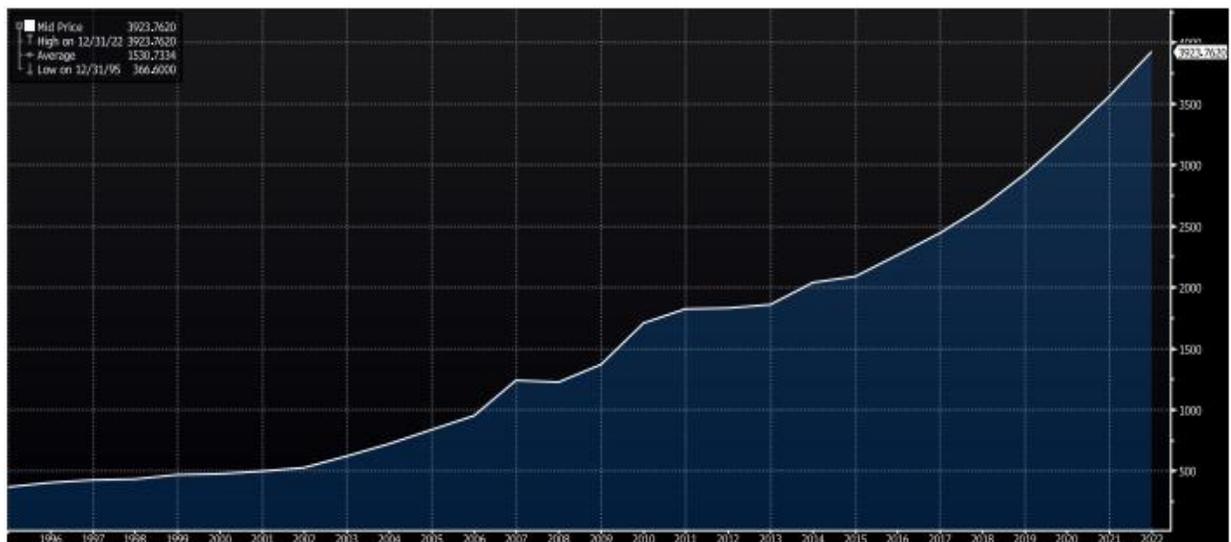
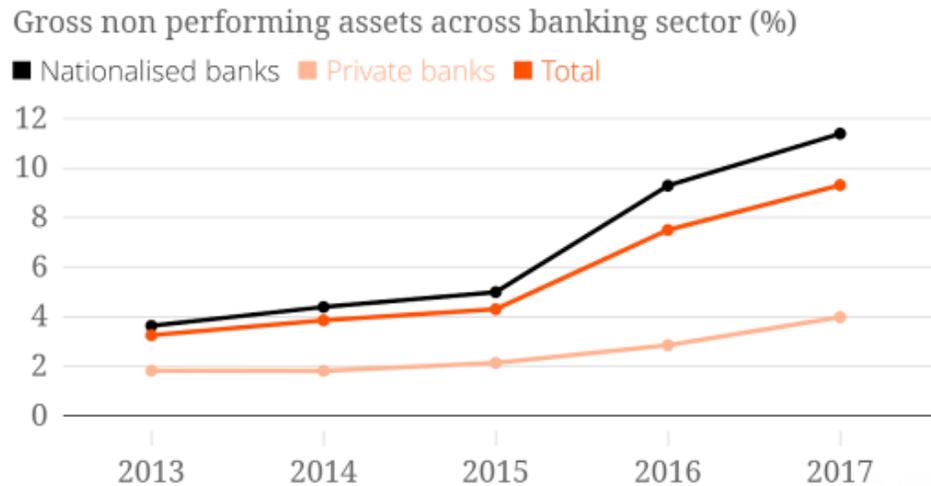


Chart 11: Banking sector India Bad Loan %



That quality is paradoxically one of the main reasons we have been avoiding the bank’s shares. As the best in class, it is obvious that HDFC deserves a premium. Very few other banking franchises in the world bring growth, a still largely untapped huge market opportunity, consistently high ROEs and a disciplined and well managed loan book.

Warren Buffet once noted that he waited for over a decade for Wal Mart to fall to a “right” price that never came and this mistake of waiting too long cost Berkshire Hathaway over US\$ 10 billion dollars.

Likewise, had we started buying HDFC a year ago, we would already be sitting on a 50% return. But that may turn out to be a good thing over the long term, because we think HDFC may be the kind of company that an astute investor buys over the years and decades. It is a powerful franchise, like the ones the US economy used to have in abundance. It may be a decent stock to hold for the very long term.

HDFC has a market capitalization of around 4,8 trillion rupees (around \$ 75 billion dollars) and has a tangible book value around 917 billion rupees (a seemingly expensive price to book ratio around 4,9 times)

Consistently high ROEs, close to 18% yearly, mean that an investor will probably pay a forward price to earnings ratio of 26 times.

While admitting it is always hard to predict how the future will turn out to be, this house models a long term growth rate of 12% (assuming a long term Indian economic growth of 6% plus a faster growth of the housing segment in the economy plus a gain of market share that has been happening and should keep happening) .The company's consistently high ROE, close to 20%, show us this may be a very conservative assumption.

Assuming a 15% required return to a simple Gordon earnings growth model, a Price / Book ratio of 6 would be warranted.

$$18 / 0.15 - 0.12 = 6$$

It is very important to note, this house doesn't focus its HDFC thesis on a Gordon earnings growth model or any other particular quantitative tool. Instead, we use a mosaic of reasonings, opinions, quantitative facts and analysis to reach our conclusion.

Obviously, models like these are helpful for us to understand reality a little bit more. They certainly don't capture all the optionalities, all the risks and circumstances, the changes in sentiment in valuation, the twists and turns of business. But they are a guiding light. And they leave us a clue that we at least find useful for our reasoning.

A price to book ratio of 6 would land us on a target price of 119, a 22% upside to a still undervalued franchise that is, in this house's opinion, by far, the most promising in the Indian subcontinent.

Risks

What is the worst thing that could happen to HDFC? Being pessimistic, thinking about downsides and worst outcomes is part of our job. We can come up with three potentially very bad circumstances.

A) The Indian economy suddenly decelerates

Indian investors are at the same time a disappointed and optimistic bunch.

They have every reason to be optimistic: due to their enormous and young population, reserve of talent, location and skills. Their country should have, if no major catastrophe occurs, an economy at roughly the same size of the United States during the year 2050.

At the same time, Indian investors are no strangers to disappointment since their economy has consistently underperformed compared not only to China, but more importantly, to its own potential.

A major crash is unlikely but not impossible. The bad loan problem in the banking sector could get worse and the government could show unwillingness to work things out. A currency crisis, since India has a perennial current account problem could happen if oil goes back above \$ 100.

Finally, maybe more dramatically, India still has demons of its own to sort out not only with Pakistan, its neighbor, but within its own borders where sectarian divisions, between its Hindu and Muslim populations are and the problem is only made worse by some hardline elements in the BJP party.

All in all, we still believe India will survive in its current form and its young, driven and peaceful population will find a way to coexist and move the country forward.

B) Urbanization in India may stall

HDFC thesis is heavily focused on the Indian urbanization story. This urbanization, as we explained above, happens in a slower and more chaotic way than in China.

Even with the fact that at the time of this writing only 37% of the Indian population already lives in cities, it is believed that one in every three residents of Mumbai are living in slums.

With the current advent of robotics and AI, it is possible that manufacturing and blue collar jobs may start to disappear and these are exactly the kind of jobs that usually entice rural folk to the cities.

If technological change does not become too disruptive, India should continue adding people to its cities.

The current best informed guess is that while China will add roughly one percent of its population per year to its cities, from the

current 57% to 90% in 2050, India will experience a slower path, going from 33% in 2017 to 40% in 2030 and 50% in 2045.

C) Indian banking problems could get worse

HDFC was largely unscattered by the Indian banking crisis.

A possible worse crisis would be bittersweet: on the one hand, HDFC could gain market share, especially from the public sector, which is terribly managed, on the other hand, banking crisis are unpredictable beasts and even innocent bystanders could be harmed.

Overall, we think the Indian economy is still too early in its development cycle to have problems more similar to what happened in developed markets. We think growth in high single digits should assure nothing too bad happens, only localized and punctual problems that can be sorted out.

5) The Indian way of urbanization ahead

Banking is certainly a tough sector to be invested in. On one side of the spectrum, boring, utility-like franchises that offer very few promise of upside significantly above the expected returns. We would rank banks like HSBC, JPMorgan Chase, and even, in 2017, Goldman Sachs, in this category.

On the other, risky enterprises like Greek banks that certainly can reward their bold investors with tremendous upside but certainly with volatility and downside risk along the way.

We think HDFC offer the best of both worlds. The best of its lot in a promising democracy, still early in its development stage and whose very name reminds us of how promising its most famous product line is and how powerful the idea of its mission: to house, and therefore provide a basic human need to a subcontinent of over one billion mostly young people that are becoming more urban and affluent, moving to nuclear homes and having increased capacity and interest to take loans, pay, and walk ahead.

Even with the fact that it's current share price is above what we would like and therefore does not make room for our fund to increase the position size as high as we would like, still it is worth saying, it is for ideas like this one, for projects like these, that we work every day: franchises with numbers fastly improving and whose existence is logical, necessary and vital to its customers.

FCL Team.

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