

The Brazilian Competitiveness Cliff

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Climbing down a competitiveness cliff

1. Export performance in the recent past;
2. Elements potentially associated with low competitiveness;
3. Policy recommendations.

Export Performance

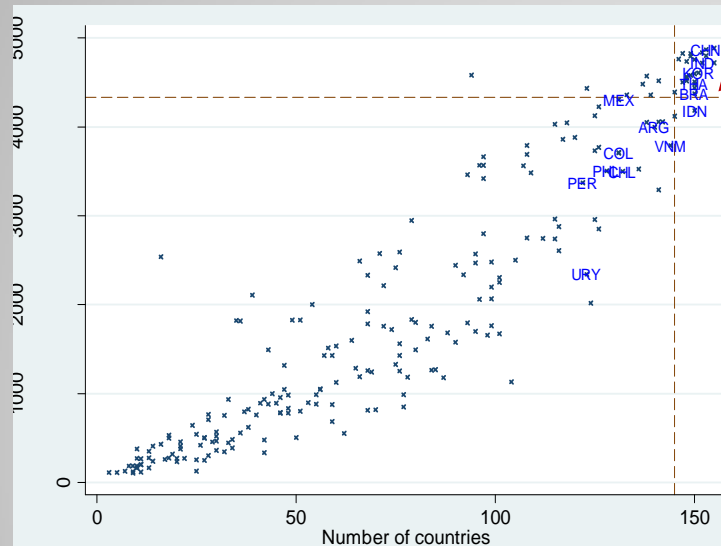
- The good news:
- Brazilian exports showed remarkable expansion in recent years.
- Exports expanded 262% during 2000-10, almost twice the global average.
- Exports are well diversified in both markets and products.



Export Performance

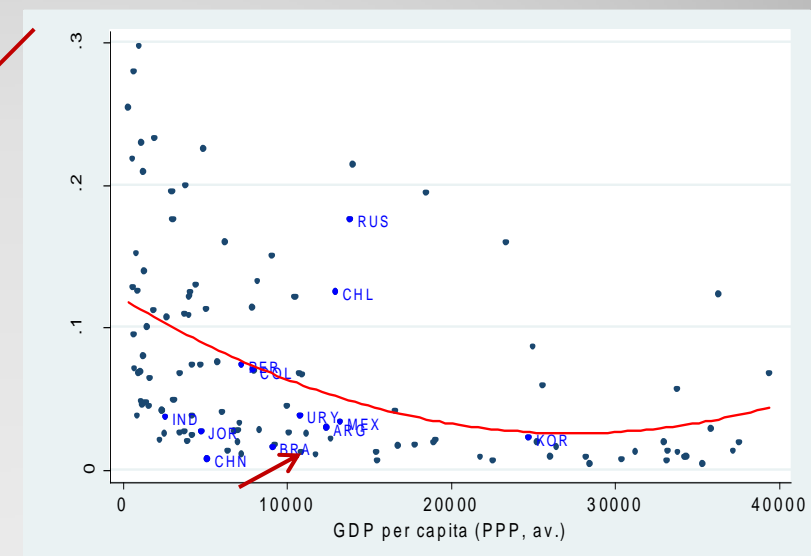
- Brazil is a global trader - exports a large number of products to many markets.
- Herfindahl Index also shows strong diversification.

Figure 3. Product and Markets (2008–10)



Source: World Integrated Trade Solution.

Figure 5. Herfindahl Index and GDP per Capita



Source: World Development Indicators.

Export Performance

- RCA: primary products and natural resource based
- Markets: China up, US down

Table 1

SECTORAL COMPOSITION (HS2) OF EXPORTS AND REVEALED COMPARATIVE ADVANTAGE

Type	Value 2009–11	Share 2009–11	RCA 2009–11
25–27 Minerals	149,408	25.2	1.4
16–24 Foodstuffs	81,520	13.8	4.5
06–15 Vegetable	72,620	12.3	3.9
71–83 Metals	51,345	8.7	0.9
86–89 Transportation	49,711	8.4	0.9
84–85 Machinery/electricity	48,398	8.2	0.3
01–05 Animal	39,885	6.7	3.6
28–38 Chemicals	30,363	5.1	0.5
44–49 Wood	24,382	4.1	1.6
39–40 Plastic / rubber	16,323	2.8	0.6
50–63 Textiles, clothing	6,999	1.2	0.3
90–97 Miscellaneous	6,639	1.1	0.2
41–43 Hides, skins	5,237	0.9	1.5
68–70 Stone/glass	4,800	0.8	0.9
64–67 Footwear	4,611	0.8	1.0

Source: World Integrated Trade Solution.

Table 2

MAIN EXPORT DESTINATIONS

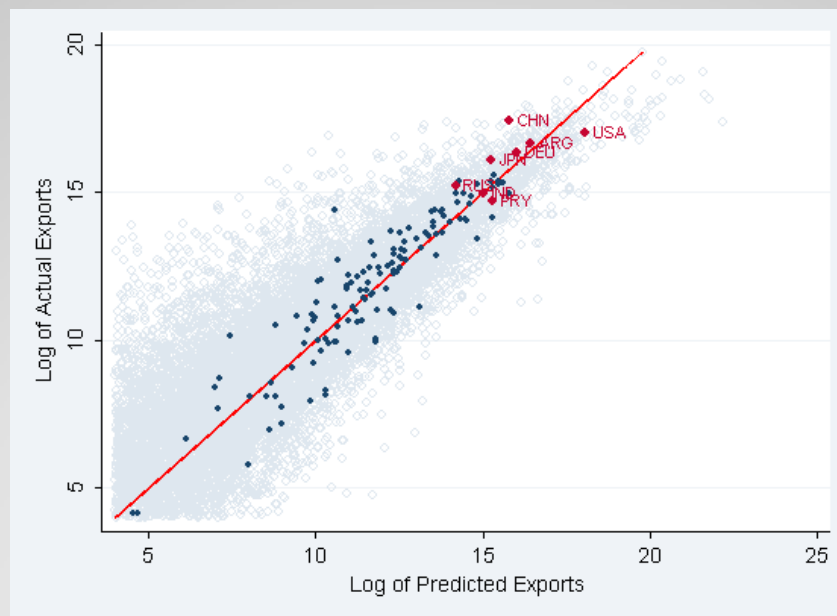
Destinations	1996–98 (%)	2006–8 (%)	2009–11 (%)
European Union (27)	26.1	24.4	21.9
China	2.1	7.4	16.1
United States	19.1	16.1	10.3
Argentina	12.6	9.0	9.1
Japan	5.6	3.0	3.5
Chile	2.2	2.7	2.1
Venezuela, R. B. de	1.3	2.8	2.0
Russian Federation	1.3	2.5	1.9
Korea, Rep. of	1.4	1.5	1.9
Mexico	1.7	2.7	1.7
India	0.3	0.6	1.7
Saudi Arabia	0.8	1.1	1.4
St. Lucia	0.0	1.0	1.4
Paraguay	2.6	1.1	1.2
Canada	1.1	1.3	1.2
Colombia	0.9	1.4	1.1
Others	20.8	21.5	21.5

Source: World Integrated Trade Solution.

Export Performance

- Gravity Model: under-trades with US, although stable, but increasingly over-trades with China.

Figure 7. Gravity Model: Actual versus Predicted Exports, 2010

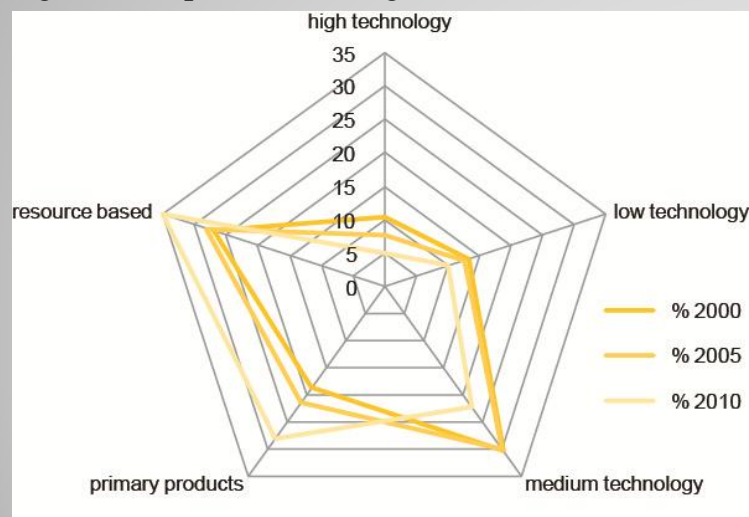


Source: Authors' calculation.

Export Performance

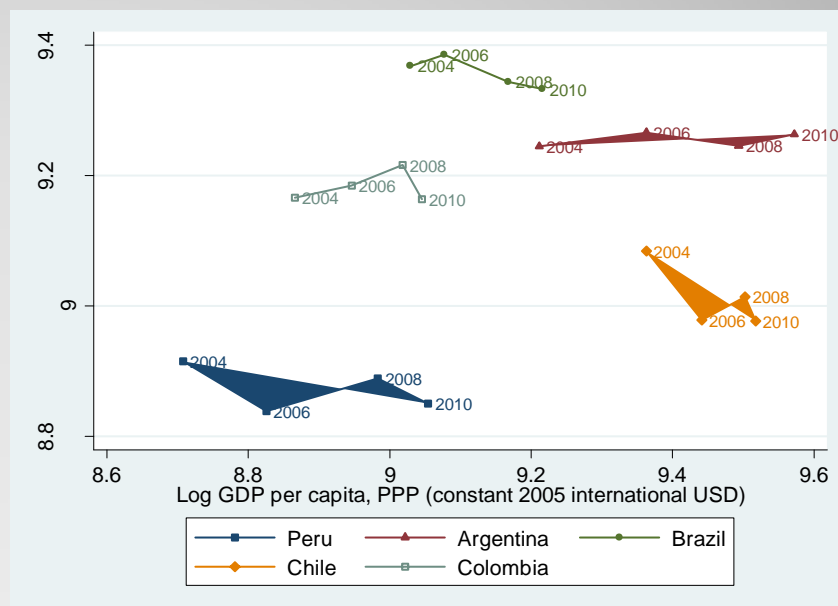
- High-technology products lost ground, as absolute growth was only 36% during 2000-10.
- Average sophistication (EXPY index) has decreased.

Figure 9. Export Technological Content



Source: World Bank, World Development Indicators.

Figure 10. Brazil and Latin America (2004–10): EXPY Index



Source: Authors' calculation.

Export Performance

- Brazilian exports benefited from strong geographical and sector effects; pure “competitiveness effect” is lower than BRICS and MIST.

Table 5

Export Growth Decomposition: Brazil (first quarter 2009 to third quarter 2011)

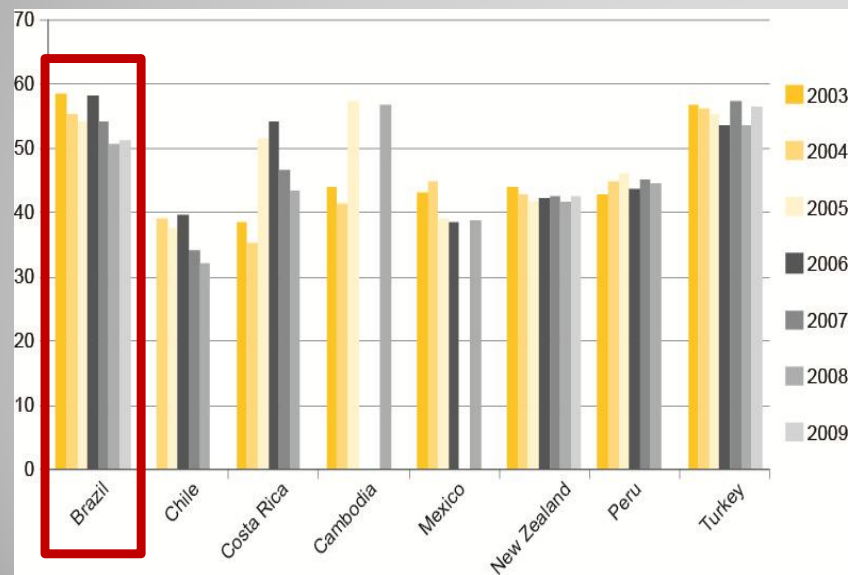
		Export growth (%)	Export market share change (%)	Performance (export growth without composition effects) (%)	Pull factors (specialization, composition effects), of which:		Push factors (export market share growth without composition effects), of which:		
					Geographical (%)	Sectoral (%)	Overall (value) (%)	Price component (%)	Volume component (%)
G-3									
European (EU27)	Union	6.9	-2.9	9	-1.6	-0.5	-0.6	0	-0.6
of which Euro Area (EA17)		5.8	-4.1	7.4	-1.3	-0.3	-2.2	-0.4	-1.7
Japan		7.4	-2.4	4.5	3.6	-0.6	-5.1	2.4	-7.2
United States		6.5	-3.3	5.1	1.2	0.2	-4.3	-0.8	-3.7
BRICS									
Brazil		13.2	3.4	11.2	0.8	1.2	1.1	0.6	0.4
Russian Federation		18.4	8.6	16	-0.8	3.3	5.2	0.9	4.3
India		16.3	6.5	13.9	-1.3	3.8	3.3	0.5	2.8
China		11.8	2	15.9	-0.2	-3.9	6.1	-0.7	6.9
South Africa		14.4	4.6	13	2.2	-0.8	2.6	-0.9	3.5
MIST									
Mexico		12.3	2.5	15.5	-3	-0.2	5.6	-0.3	6
Indonesia		17.1	7.3	14.9	1	1.2	4.4	1.8	2.6
Korea, Rep. of		15.7	5.9	12.8	4.3	-1.4	2.4	0.2	2.2
Turkey		8.7	-1.1	12.5	-1.4	-2.4	2.8	-1.9	4.8
Source: Authors' calculation. Note: Figures are in average annual growth.									

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Export Performance

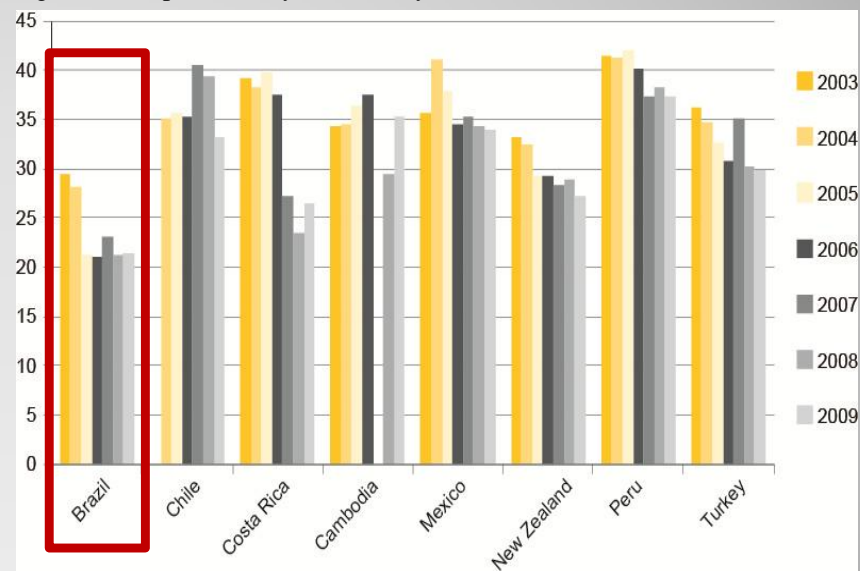
- Firm-level dynamics: high survival rate, but from the wrong reason, as firms showed the lowest entry rate in the 44 country-sample.

Figure 11. Exporter Survival Rate (one year, 2003–9)



Source: Export Dynamics Database; authors' calculation.

Figure 12. Exporter Entry Rate (one year) (2003–9)

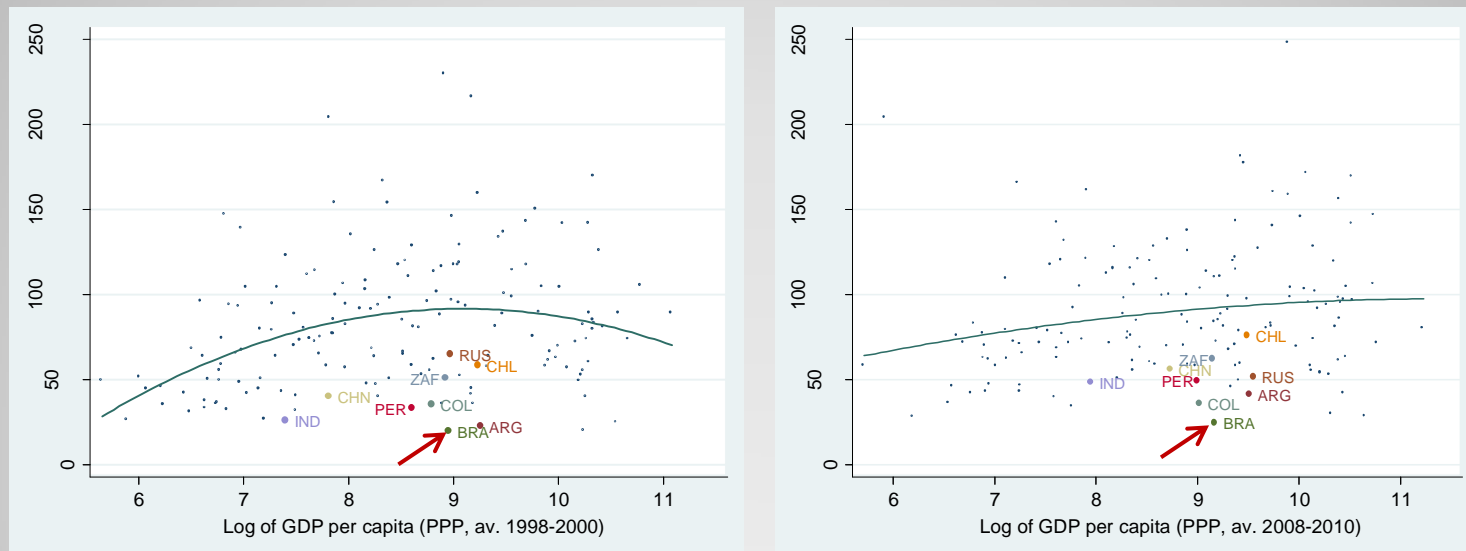


Source: Export Dynamics Database; authors' calculation.

Export Performance

- Exports expanded 262% during 2000-10.
- Almost twice of global average, but half of BRICS.
- Trade openness is still among the lowest.

Figure 2. Trade to GDP (%)



Source: World Bank. World Development Indicators.

Export Performance

In a cross-country sample of 155 countries in 2010-11, Brazil had the lowest trade-to-GDP ratio at 23.6%. But large (or landlocked) countries trade less, all else equal; trade-to-GDP ratio for the US is only 29%, Argentina (40.7%), Colombia (34.5%). Compared to 1990-91, however, Brazil has increased its ratio from about 16%.

Cross country regression can adjust the actual openness ratio to factor in other explanatory variables. Typical are:

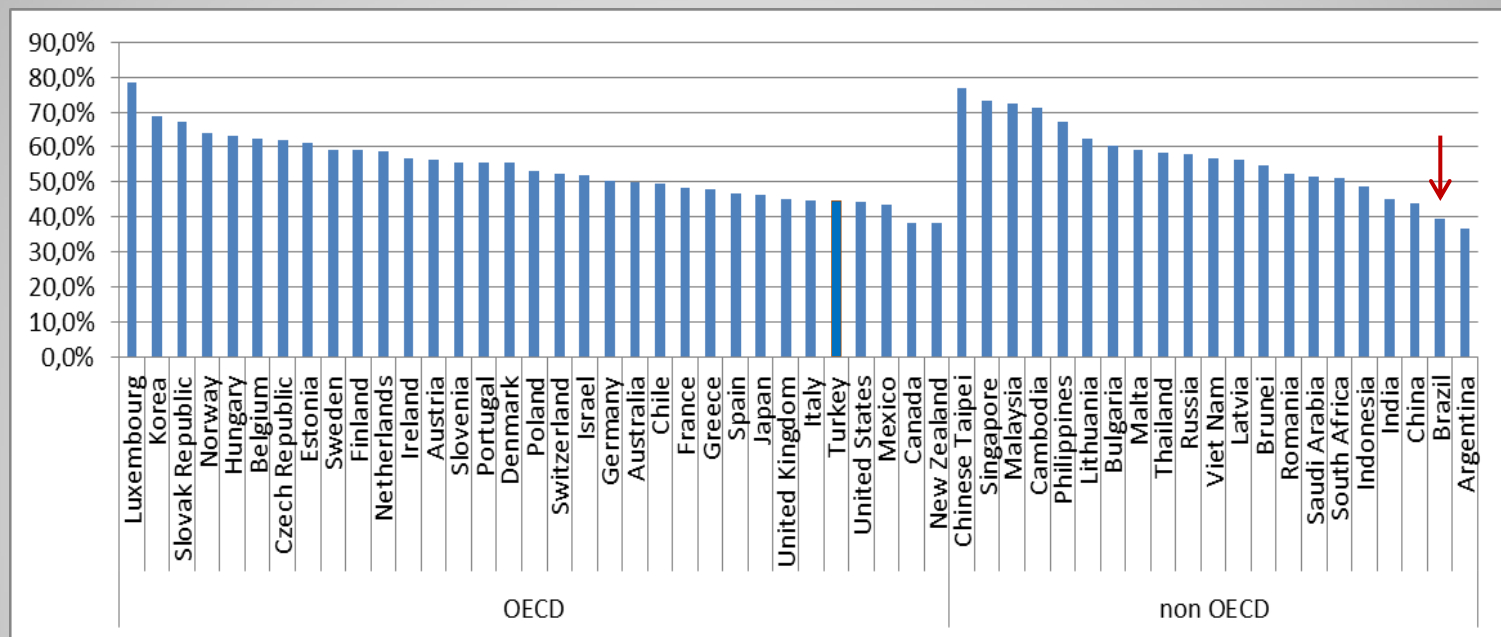
Log GDP, log GDP squared, log of population, log of remoteness and a dummy for landlockedness.

Our linear model predicts that Brazil should have an approx. trade-GDP ratio of 53.7%; it is under-trading by about 30 percentage points. Not the highest one, though – Colombia, for example, is under-trading by more than Brazil (actually almost all LAC countries under-trade!)



Export Performance

- Another way to look at this is through the participation index (Koopman et al, 2011). The chart taken from OECD 2012 confirms Brazil's lack of integration in global value chains.

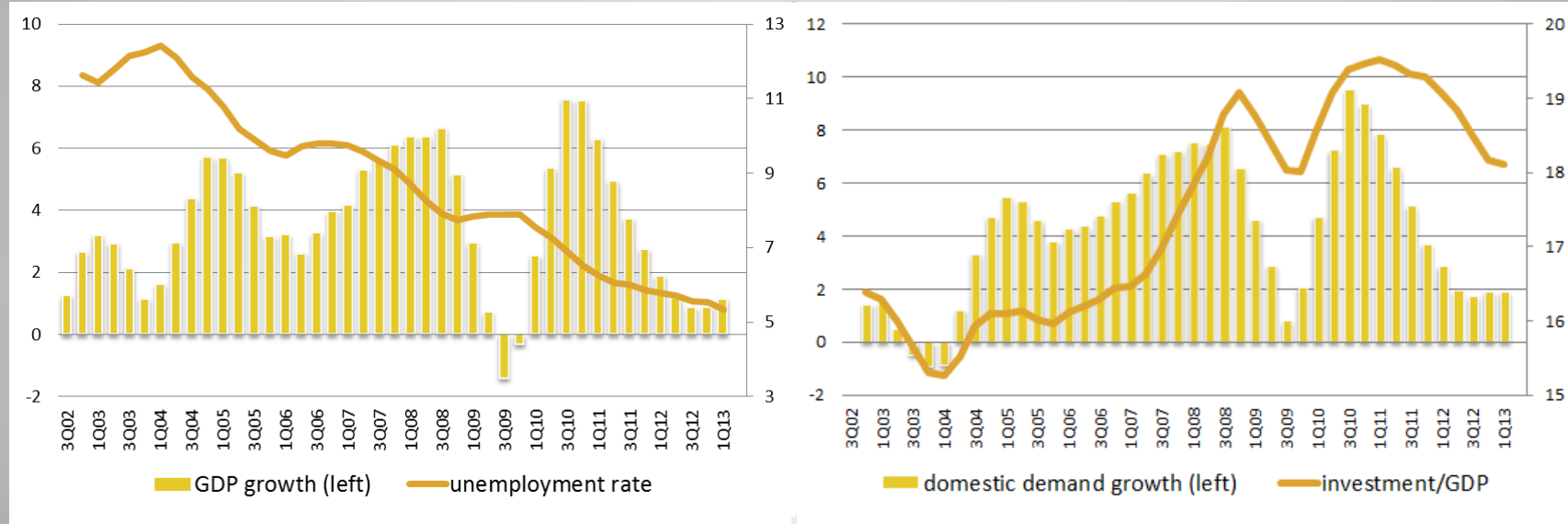


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Brazilian Economy

- Puzzle: “soft-landing” with full employment, but no reaction from investment ratio.

Figure: GDP Growth, Unemployment, Domestic Demand and Investment Ratio

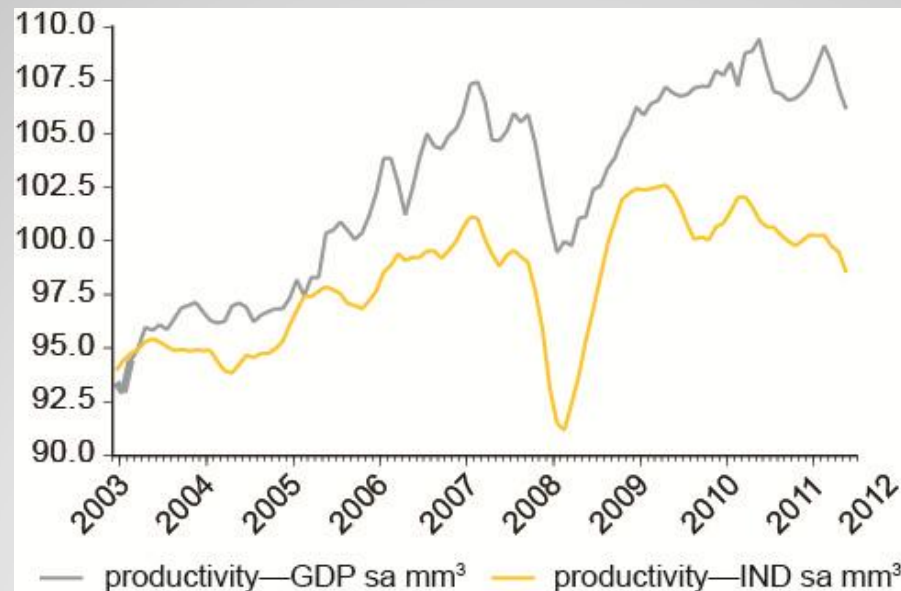


Source: Instituto Brasileiro de Geografia e Estatística

Competitiveness Challenge

- Sluggish labor productivity gains mainly in industry.
- Manufacturing labor productivity contracted 0.7%pa during 2000-09 based on National Accounts.

Figure 17. Industry and GDP: Evolution of Labor Productivity

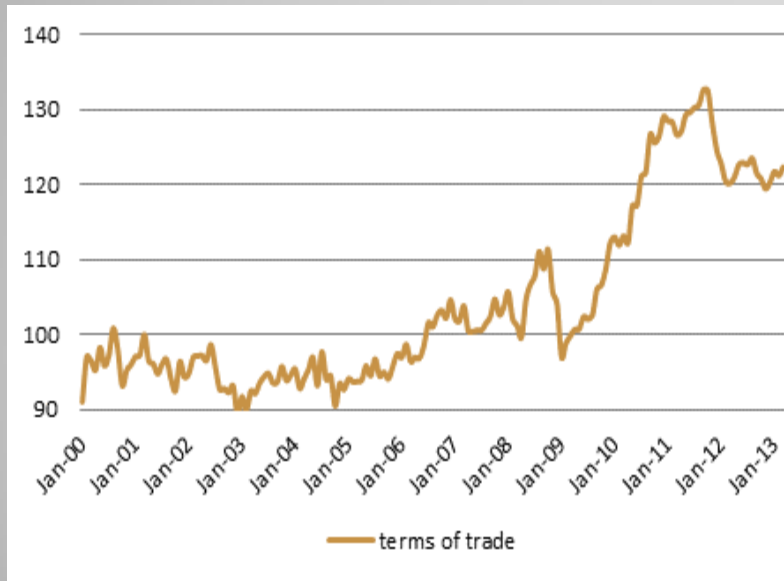


Source: National Industry Confederation; Central Bank of Brazil; authors' calculation.

Competitiveness Challenge

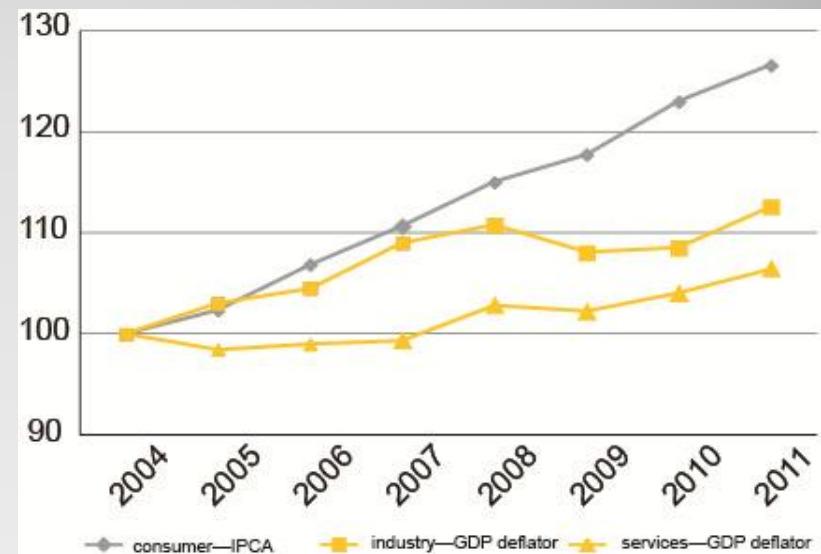
- Favorable terms of trade fuel employment and income, and by consequence domestic demand.
- Service sectors benefit from domestic demand and may accommodate larger cost pressures.

Figure 18. Terms of Trade



Source: Funcex (<http://www.funcex.org.br>).

Figure 19. Real Average Wages

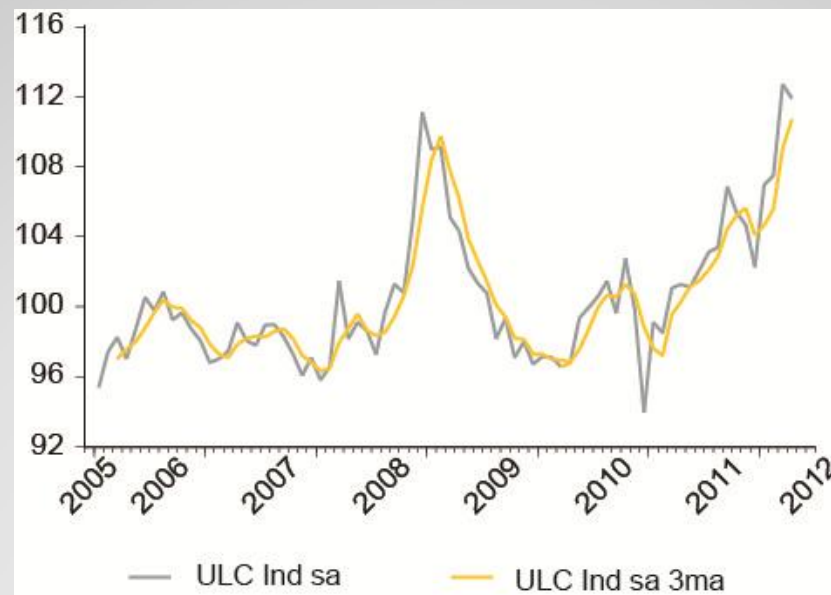


Source: Instituto Brasileiro de Geografia and Estatística (IBGE).

Competitiveness Challenge

- As a result of the combination of higher real wages and stagnant or falling labor productivity, industrial unit labor costs have soared.

Figure 20. Unit Labor Cost in Industry Sector

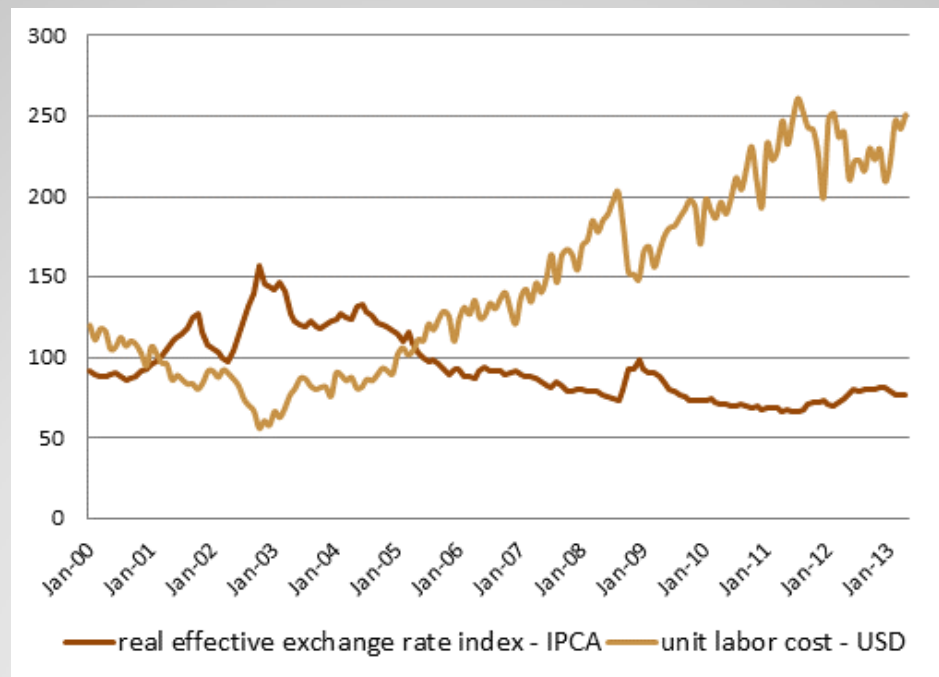


Source: National Industry Confederation; authors' calculation.

Competitiveness Challenge

- Exchange rate appreciation seems to be just one more element adding to the competitiveness.

Figure 21. Real Effective Exchange Rate and Unit Labor Cost

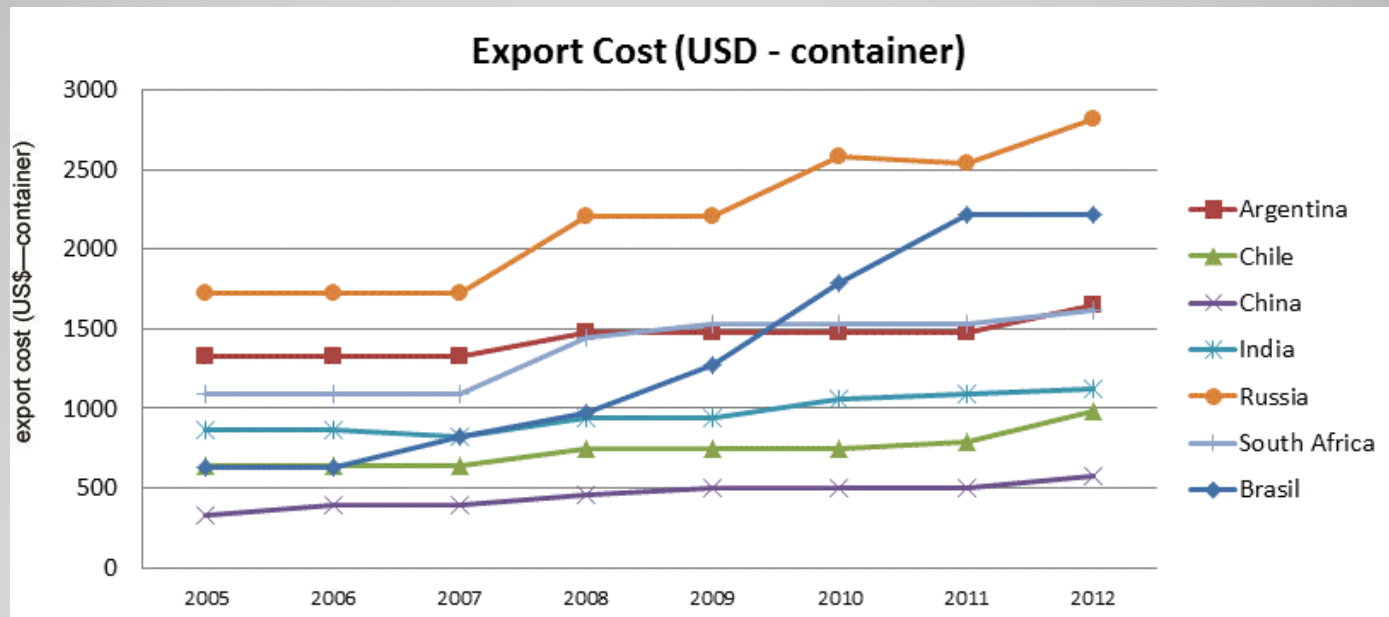


Source: Central Bank of Brazil.

Competitiveness Challenge

- Trade costs indicators are still high, and logistics performance has plenty to improve.

Figure 22. Foreign Trade Logistics – Costs of Dealing with Containers



Source: World Bank. World Development Indicators.

Conclusion

- Brazilian economy shows remarkable diversification with potential to expand trade openness.
- But, some major concerns remain:
 - ✓ export entry rate is low and has dropped.
 - ✓ export performance fueled by significant favorable geographical and sector composition effects.
 - ✓ declining sophistication, not just because the success of commodity-related exports.
 - ✓ significant cost pressures and competitiveness issues.

Conclusion

- Policies aiming at higher productivity are crucial, rather than just short-term stimulus or focused policies favoring some export sectors.
- This diagnostic reinforces the importance of resuming the agenda of microeconomic reforms, increasing the investment-to-GDP ratio, and advancing toward a better-skilled human capital base.
- Promoting and rewarding productivity gains in a competitive economy, including the service sector, are the only options to accelerate growth and overcome middle-income growth traps.

Thank you

"[The Brazilian Competitiveness Cliff](#)," with Matheus Cavallari and Jose Guilherme Reis. *Economic Premise* No. 105. Washington D.C. February 2013.

"[Brazilian Exports: Climbing Down a Competitiveness Cliff](#)," with Matheus Cavallari and Jose Guilherme Reis. Policy Research Working Paper 6302. World Bank. Washington D.C. January 2013.