Inflation and income distribution in Brazil from a Kaleckian perspective

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FMM Conference "Inflation, distributional conflict and just transition" - October 20th, 2023







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Source: Chancel et al. (2021, p. 185)

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Source: Ipeadata (Own elaboration). Time span: 1995 to 2022.

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- 3. High real interest rates

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Real Interest Rate (ex ante)*																	
																8%	
												Re	Real Cost of Borrowing				
BRAZIL	0			(iiiii)	Centra	l Bank	k has kep	t interes	st rates			-•			6.94%		
MEXICO	•				above 10% since February 2022.								6.05%				
CHILE	1													4.92%			
PHILIPPINES	- ᅙ													2.62%			
INDONESIA													1	2.45%			
COLOMBIA													1.9	93%			
HONG KONG	8												1.5	74%			
AFRICA	- 📚												1.6	0%			
ISRAEL	2												1.5	7%			
INDIA													1.29	%			
CHINA					The Fe	ederal R	Reserve	has rais	sed			0	.37%				
STATES				March 2022 to tame inflation								-• 0.	• 0.36%				
HUNGARY	-				March 2022 to tame imiditori.								0.34%				

Source: https://www.visualcapitalist.com/visualized-real-interest-rates-by-country/.

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In such a context, the relationship between inflation and inequality becomes ambiguous.

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Cost-determined prices:

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Profit inflation

(Davidson, 1978; Dutt, 1987; Rowthorn, 1977; Storm, 2023; Weber, 2022; Weber and Wasner, 2023, among others)

Reduce real wages and wage share

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- Reduce real wages and wage share
- Imported inflation

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- · Reduce real wages and wage share
- Wage inflation

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Increase real wage and wage share

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- · Demand and supply mismatches
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- Very relevant for commodities negotiated in international markets: can be a source of imported inflation
- Reduce real wages and wage share

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Inflation can be related to lower wage share and real wages in the case of profit inflation, imported inflation, and inflation of demand-determined prices.

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Brazil from 2000 to 2020



Source: Banco Central do Brasil and IBGE (Author's own elaboration). Quarterly data seasonally adjusted.

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- The different degrees of exposure to international competition leads to different dynamics of inflation in the tradable and non-tradable goods sectors (Baltar, 2015)

Is there a Phillips curve in Brazil?



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Sources: Banco Central do Brasil and IBGE (Author's own elaboration).

What else explains inflation in Brazil?



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Inflation as a multidimensional phenomenon

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Link between foreign sector and inflation rates

Through the tradable goods sector, inflation dynamics is strongly connected to the foreign sector

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Higher unemployment rates being associated with higher profit shares

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- Higher unemployment rates being associated with higher profit shares
- Higher level of foreign prices and/or exchange rate being associated with higher profit shares

Income distribution and its determinants



Sources: Banco Central do Brasil and IBGE (Author's own elaboration). Time span: 2000 to 2020 (quarterly data).

Subperiod analysis



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Link between foreign sector and income distribution

Foreign prices and the nominal exchange rate are important determinants of income distribution

The relationship between inflation and inequality in Brazil can be described by the inequality-augmented Phillips curve (Rolim et al. 2023).

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- Yet, the multidimensional determination of these variables suggests a time-varying inequality-augmented Phillips curve.

Inequality-augmented Phillips curve

Wage inflation



Inequality-augmented Phillips curve

Wage inflation

Imported inflation



Source: Own elaboration based on Rolim et al. (2023) and Rolim (2023).

Inequality-augmented Phillips curve

Wage inflation

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Source: Own elaboration based on Rolim et al. (2023) and Rolim (2023).

Explaining the Brazilian inequality-inflation nexus

Based on these insights:

• 2000 to 2006: the high inflation rates were predominantly explained by high growth rate of foreign prices in domestic currency. At the same time, there was a high unemployment rate. Both factors sustained a high profit share.

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- 2007 to 2014: low unemployment rates and, during some time, stable foreign prices in domestic currency, leading to a negative association between inflation and the profit share. The increase in foreign prices in domestic currency after 2011 was still associated with a decreasing profit share

 2015 to 2020: increasing unemployment rates and strong growth of foreign prices in domestic currency. Both factors induced an increase in the profit share, while inflation decreased.

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Except for 2007 to 2014, the framework developed here seems to describe adequately the Brazilian context. Yet, there seems to be a missing inequality puzzle for the period between 2007 to 2014: why didn't the increase in foreign prices in domestic currency induce higher profit shares?

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Income distribution within sectors



Source: IBGE (Author's own elaboration). Note: the aggregate wage share is also affected by composition effects, which tend to be the most important factor for its dynamics (Martins, 2017). 25

Income distribution within sectors



Sector Agriculture - Industry Services Total

Income distribution within sectors



Source: IBGE (Author's own elaboration).

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- Increasing dependence on imported inputs (Marcato and Ultremare, 2018, Montanha et al., 2022, Sarti and Hiratuka, 2017)
- Reduced international competitiveness in the new world context

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Thus, higher foreign prices in domestic currency meant higher costs, in a context of growing wages. Firms' could not pass on to prices those cost increases due to their reduced international competitiveness.
Solving the missing inequality puzzle

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Decomposing the wage share following Saramago et al. (2018), the real wage depends on:

$$w_r = \omega b_r \tau \tag{1}$$

where w_r is the real wage, ω is the wage share, b_r is the real labor productivity, and $\tau = p_y/p_w$ is the relative price (Saramago et al., 2018).

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 τ and b_r indicate the possibility of real wage growth without increases in the wage share (without pressuring profit margins).

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Stagnant or adverse movements in τ and b_r intensify the distributive conflict.











Source: IBGE (Author's own elaboration).

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- A more explicit distributive conflict, in a Kaleckian view, translates into higher inflation rates (Rowthorn, 1977).
- Yet, it also translates into important political changes (Kalecki, 1943).

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Inflation targeting regime

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Link between foreign sector and real interest rates

Through the IT regime, higher real interest rates are needed to react to foreign shocks and to compensate domestic shocks.

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- When this condition is fulfilled: the distributive effect of the interest rate is ambiguous (Rolim and Marins, 2022)
 - Income flow to financial asset holders
 - Exchange rate appreciation may induce higher wage shares and higher real wages

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As a result, inflation was controlled. More importantly, however, nominal wage growth decelerated and the profit share increased significantly.

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- The foreign sector has a strong effect on the intensity of the distributive conflict in Brazil. One of the challenges of the Brazilian economy is to reduce its dependence on an appreciated domestic currency:
 - as a tool to manage the distributive conflict and control the inflation rate
 - · as a tool that allows the adoption of redistributive policies

Thank you!

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