Wage Inequality in Institutions: A Great Divergence in the Democratic Republic of Congo

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Plan

Motivation

Source : www.presidence.cd

Motivation

RÉPUBLIQUE DÉMOCRATIQUE DU CONGO
LE GOUVERNEMENT

MINISTÈRE DE LA COMMUNICATION ET MEDIAS

Le Ministre

COMPTE RENDU DE LA TROISIEME REUNION ORDINAIRE
DU CONSEIL DES MINISTRES

Vendredi 28 juin 2024

Motivation

4. De la problématique de la rationalisation du système de rémunération des agents et fonctionnaires de l'Etat

La politique de rémunération des agents de l'Etat, déstructurée depuis plusieurs décennies, par des pratiques qui s'éloignent des principes légaux et règlementaires régissant la rémunération des agents publics de l'Etat, entrainant beaucoup d'injustices devenues profondes et inacceptables préoccupe le Président de la République.

En effet, de graves disparités sont constatées entre les différentes Administrations selon que, dans certains services, les agents sont correctement rémunérés avec salaire et primes tandis que dans d'autres, les primes sont soit inexistantes ou dérisoires. D'autres agents encore n'ont carrément aucune rémunération, communément appelés « Agents NP » (Non Payés).

Source : Munite of june 28, 2024

Motivation

On the Problem of Rationalizing the Remuneration System for State Officials and Civil Servants

The remuneration policy for State officials, which has been undermined over several decades by practices that diverge from the legal and regulatory frameworks governing public servant compensation, has generated profound and unacceptable inequities that are of concern to the President of the Republic. Notably, substantial disparities are observed across different government administrations: whereas officials in certain departments receive appropriate remuneration comprising both salary and allowances, in others such allowances are either absent or negligible. Moreover, certain officials receive no remuneration whatsoever and are commonly designated as "NP Agents" (Non-Paid Agents).

Literature

- Inequalities gained prominence in academic literature since Piketty and Saez (2003)
- Extensive literature from various perspectives :
  - Wage gaps (Katz and Murphy, 1992; Chusseau et al., 2008)
  - Top incomes (Atkinson et al., 2011; Saez and Zucman, 2020)
  - Executive pay (Gabaix and Landier, 2008; Bivens and Mishel, 2013)
  - Firm contributions (Song et al., 2019; Bloom et al., 2022)
  - Gender (Atkinson et al., 2018)
- Limited attention to public institutions in developing countries

Research Gap and Motivation

- Inter-institutional inequalities in the DRCongo
- Public spending distorted by corruption and rent-seeking (Gupta et al., 2001; Delavallade, 2006; de la Croix and Delavallade, 2007; Blackburn et al., 2008)
- Mechanisms:
  - Salary as political instrument reflecting institutional disparities
  - Rent capture through wage allocation
  - Rewarding loyal individuals (Cruz and Keefer, 2015; Kroeger, 2020)
  - Hiring new administrative staff to influence average salaries

Data Construction and Sources

- No existing database documents salaries in the Congolese administration
- We collected wage bill allocations and headcount data for each administrative entity from the Ministry of Budget, DRC
- We computed average institutional salaries
- Our balanced panel covers the period 2010–2022
- We retain only institutions with complete time series over this period

Methodology: Phillips and Sul (2007) 's Convergence Test

- We adopt a latent factor representation for panel data:

$$X_{it} = \delta_{it}\mu_t$$

  where X_{it} is average wage for institution i in year t
- μ_t captures the growth trend across institutions
- δ_{it} represents time-varying factor loadings reflecting transition patterns
- Convergence occurs if δ_{it} converges to a constant as $t \to \infty$
- The transition trend follows:

$$\delta_{it} = \delta_i + \frac{\sigma_i}{t^{\alpha}\log(t)}\xi_{it}$$

- α represents the decay rate determining convergence speed

Relative Transition Coefficient

- We define the relative transition coefficient:

$$h_{it} = \frac{X_{it}}{N^{-1}\sum_{i=1}^{N} X_{it}} = \frac{\delta_{it}}{N^{-1}\sum_{i=1}^{N} \delta_{it}}$$

- This captures institutional performance relative to the panel average
- The cross-sectional variance is defined as:

$$H_t = N^{-1}\sum_{i=1}^{N}(h_{it} - 1)^2$$

- Under convergence: $\lim_{t\to\infty} H_t = 0$
- Under divergence: H_t persistently deviates from 0

Convergence Hypotheses

- **Null Hypothesis (H_0):** $\delta_i = \delta$ for all i and $\alpha \geq 0$
  - Overall convergence among institutions
- **Alternative Hypothesis (H_1):** No convergence or existence of convergence clubs
  - Different groups exhibit similar convergence patterns
  - At least one diverging institution exists
- We employ the $\log(t)$ regression test:

$$\log\left(\frac{H_1}{H_t}\right) - 2\log(\log(t)) = a + b\log(t) + \mu_t$$

- Club convergence test Algorithm

Results

Table 1: Results of club convergence test

Initial clubs		Club merging test	Final clubs	
Club [members]	b[t-stat of b]	b[t-stat of b]	Club [members]	b[t-stat of b]
Total sample [54]	-0.78[-98.35]			
Club 1[9]	0.518[4.41]	Club 1 + Club 2 0.353[3.414] (Merger)	Club 1[15]	0.353[3.414]
Club 2[6]	0.103[1.021]	Club 2 + Club 3 -0.116[-1.872] (No merger)		
Club 3[12]	0.45[4.584]	Club 3 + Club 4 -0.088[-2.298] (No merger)	Club 2 [12]	0.45[4.584]
Club 4[17]	0.25[2.375]	Club 4 + Club 5 -0.439[-14.177] (No merger)	Club 3[17]	0.25[2.375]
Club 5[6]	0.432[10.026]	Club 5 + Club 6 0.408[5.945] (Merger)	Club 4[8]	0.408[5.945]
Club 6[2]	0.902[1.685]	Club 6 + Club 7 -1.699[-15.447] (No merger)		
Club 7[2]	-3.141[-114.977]		Club 5[2]	-3.141[-114.977]

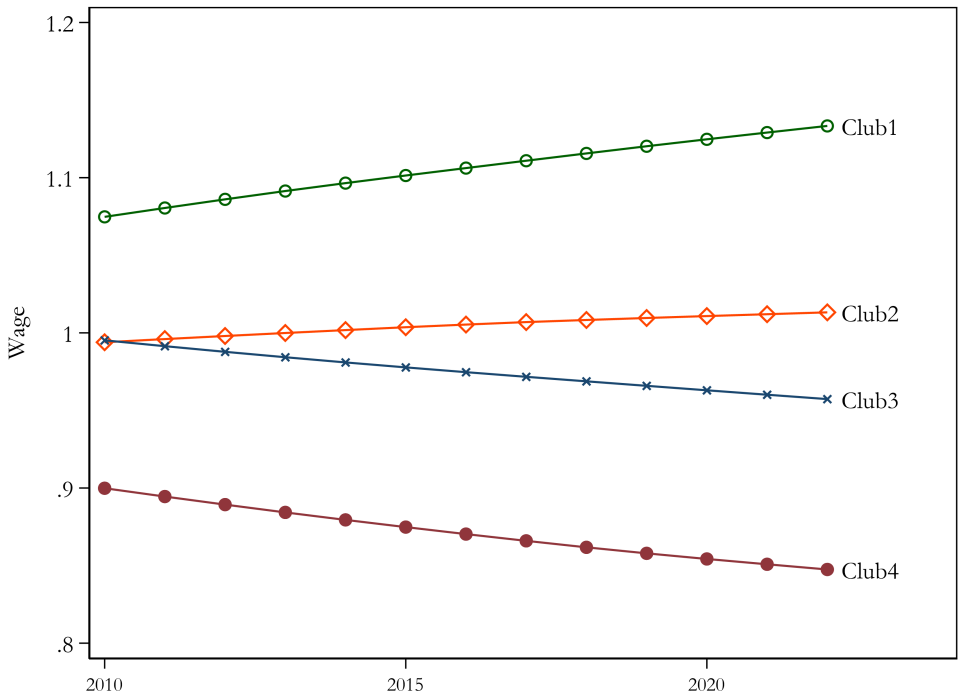
Results

Table 2: Convergence clubs, wage and convergence rate

Club	Sectors	Average wage	Convergence rate
Club 1	**Functional similarities** (Budget, Decentralization, Finance, Foreign affairs, Hydrocarbons, Parliament, Offices of PR and PM,...)	1.11	0.18
Club 2	**Policy cohesion** (Gender, Health, National economy, Planning, Portfolio, SME, Social affairs, Transport,...)	1.00	0.22
Club 3	**Sector interdependencies** (Agriculture, Employment and labor, Energy, Foreign trade, Higher Education, Justice, Mining, Urban planning,...)	0.98	0.12
Club 4	**Security and governance focus** (Defense, Interior and security, Land affairs, Public service, Tourism, Youth,...)	0.87	0.20

Results

Figure 1: Relative transition path of clubs



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Conclusion

- We examined the extent of inter-institutional wage inequalities in the DRC using original data from the Ministry of Budget (2010–2022)
- The Phillips and Sul (2007)'s convergence test reveals no overall convergence, but identifies four distinct convergence clubs based on (i) functional similarities, (ii)policy cohesion, (iii) sector interdependencies, and (iv) security and governance focus
- These findings add to the understanding of the complexities of wage dynamics within the public sector, where factors such as corruption, rent-seeking behavior, and political power play a role in determining salary discrepancies.

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