

Rationales of minimum wage setting and understanding the variety in minimum wage rates in 207 countries, 2014-2023

**Kea Tijdens, Maarten van Klaveren, Nii Ashia Amanquarnor, Iftikhar Ahmad.
International Conference on Corporate Social Responsibility and Decent
Work in the era of Sustainable Development Goals, Pune, India, 23 March
2024**

Introduction and Background

- The recent focus on minimum wages has gained traction globally, with initiatives such as the UN's SDG-8 and the ILO's Centenary Declaration advocating for decent minimum wages. However, despite this advocacy, global knowledge about minimum wage levels and their adequacy remains limited
- The ILO has played a key role in minimum wage setting, focusing on minimum wage machinery and adjustment criteria.
- Compliance with minimum wage regulations and coverage of the workforce are essential, with high levels of informality posing challenges to enforcement.
- Research indicates that minimum wages can redistribute income slightly in favour of the poor
- Adequate minimum wage levels are crucial for protecting workers against low pay and reducing inequality but setting them requires a balance between protection and avoiding adverse employment effects.

Research Objectives

1. Identify the rationales guiding countries in setting minimum wages, focusing on:
 - Ensuring decent wages for the entire labor force
 - Reducing poverty
 - Ensuring productivity
 - Keeping up with the applicable consumer price index
 - Mimicking collective bargaining
2. Investigate how these rationales influence:
 - Minimum wage levels
 - Trends over time
 - Ability to keep up with inflation

Methods and data

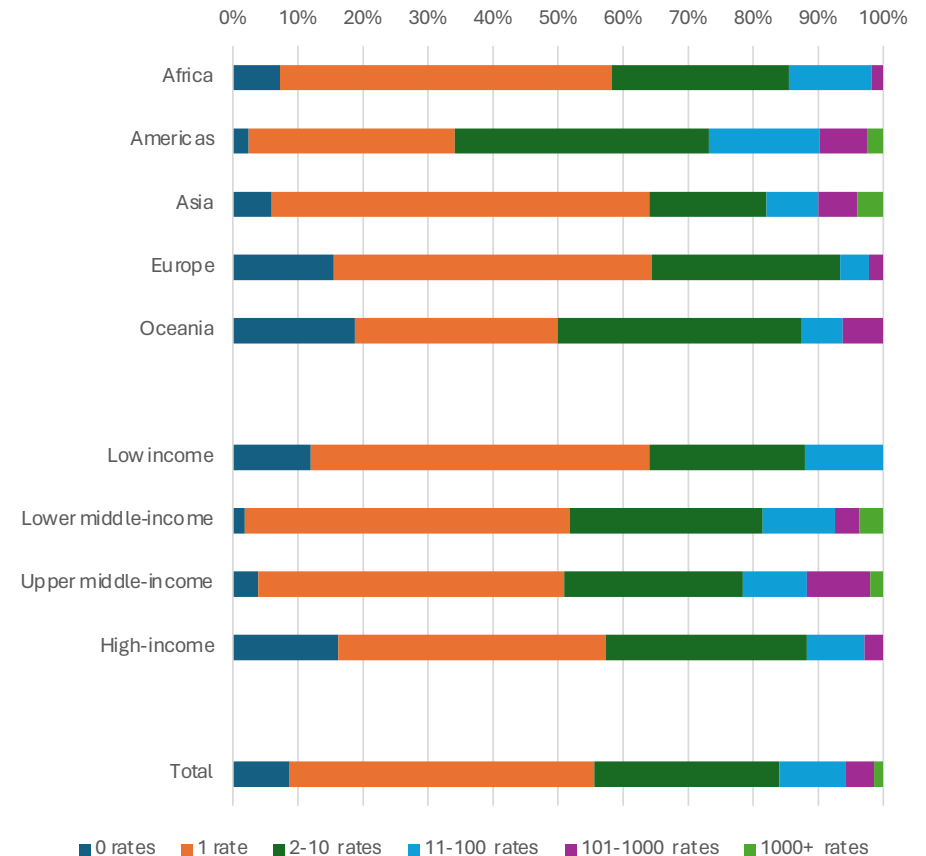
- **WageIndicator Minimum Wage Database (MWDB):** Offers monthly minimum wage data in Local Currency Units (LCU) from 2014 to 2023 for 207 countries, including territories but 18 lack statutory minimum wages with over 22,274 rates per month for different pay periods ranging from hours to years as of December 2023.

Maintenance and Operation of MWDB:

- MWDB targets Statutory Minimum Wage (SMW) rates set by issuing authorities.
- Excludes wages from Collective Labor Agreements.
- Public sector minimum wages included only if backed by law.
- Each record in MWDB has a unique ID and description sourced from issuing authorities.
- Descriptions vary from specific job titles to broad industries or geographical areas.
- Sub-minimum rates and piece rates are categorized based on description content.

WageIndicator Minimum Wage Database (MWDB)

- **Distribution of Minimum Wage Rates:**
 - 18 lack statutory minimum wages.
 - 97 countries have a single minimum wage rate, while 59 have between two and 10 rates.
 - Additionally, 21 countries have between 11 and 100 rates, nine have between 100 and 1,000 rates, and three have more than 1,000 rates.
- **Changes in Minimum Wage Rates:**
 - 30 countries increased their number of minimum wage rates due to reforms aimed at involving social partners and adjustments to reflect changes in labor market dynamics.
 - Examples include the USA, where cities and counties raised minimum wages above the federal rate, and Russia, which introduced separate rates for the private and public sectors to enhance social partner involvement.
 - In Pakistan, a tighter division of labor led to an increase in minimum wages for higher-skilled job titles.



Stacked bar graph for share of countries by number of Minimum Wage rates, by income class and by continent, 2023

Source: Country aggregates of the WageIndicator Minimum Wage Database December 2023, Africa N=55, Americas N=41, Asia N=50, Europe N=45, Oceania N=16, Total N=207
 Low income N=25, Lower middle-income N=54, Upper middle-income N=51, High-income N=68, Total N=198, for 9 countries no income data are available

Minimum Wage setting rationales

1. Ensuring Minimum Wages for the Entire Labor Force:

- Full coverage or national/federal minimum wage

2. Reducing Poverty:

- Rates for domestic workers
- Rates for unskilled workers
- Rates for agricultural workers
- Rates for piece rate workers

3. Ensuring Productivity:

- Rates for small firm size groups
- Rates for Export Processing Zone (EPZ)
- Rates for young age groups

4. Keeping Up with the Consumer Price Index (CPI):

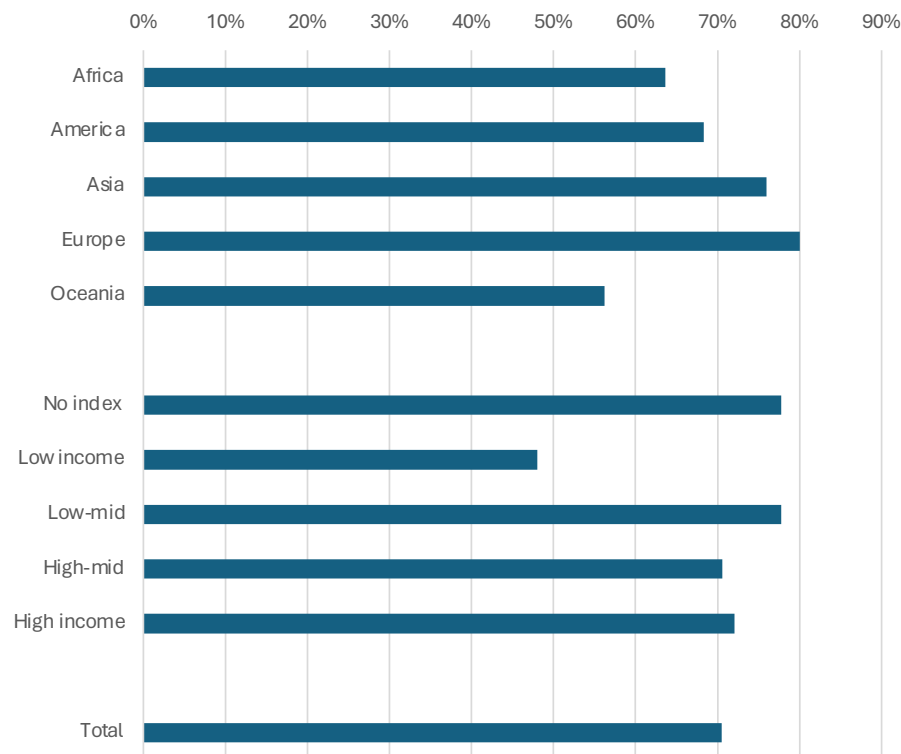
- Rates for geographical areas

5. Mimicking Collective Bargaining:

- Rates for occupations
- Rates for Industries

Ensuring Minimum wage for the entire labor force

- Countries with full coverage ensure a minimum wage for the entire labor force achieved through a National or Federal minimum wage applicable universally.
- E.g. USA, Australia, Russia, and Argentina.
- Some countries lack a National minimum wage but set minimum wage rates for all provinces or regions.
- E.g. Canada, China, Japan, the Philippines, and Bosnia and Herzegovina.
- Multiple minimum wage rates may exist within a country, covering different sectors or categories of workers.
- E.g. Chad distinguishes between Agricultural and Non-agricultural sectors, while Malawi differentiates between Urban and Rural areas.
- 146 countries in MWDB had full coverage, constituting 70% of the countries with 80 have a single minimum wage rate, while others have variations for specific categories.

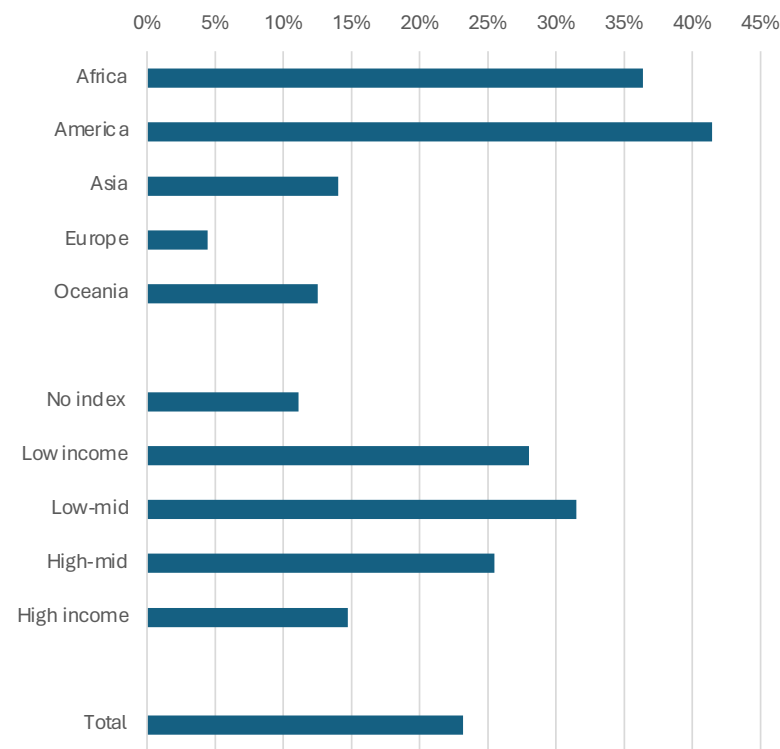


Bar graph for percentage of countries with full coverage, by continent and income class

Source: WageIndicator Minimum Wage Database MWDB, December 2023, country aggregated data, Africa N=55, Americas N=41, Asia N=50, Europe N=45, Oceania N=16, Total N=207
No index=9, Low income N=25, Lower middle-income N=54, Upper middle-income N=51, High-income N=68, Total N=207

Reducing poverty for low-paid workers

- **ILO Convention No. 26:** Stipulates implementation of minimum wages for low-paid workers not protected by collective bargaining.
- **Target Groups:**
 - **Agricultural Workers:** harvesting, weeding, and livestock care. E.g. include rates for agriculture, livestock, and forestry in Mozambique and harvesting of coffee in El Salvador.
 - **Domestic Workers:** home assistant, and live-in domestic worker, supervisor and housemaid.
 - **Unskilled and Semi-skilled Workers:** Explicitly mentioned in rates using phrases like unskilled, semi-skilled, skilled, or highly skilled. India, Bangladesh, Pakistan, and Sri Lanka frequently address unskilled and semi-skilled workers.
 - **Piece Rate Workers:** related to the volume of work performed, such as crew member of fishing vessels in Ecuador or cashew processing in India.
- **Coverage:**
 - **Agricultural Workers:** 1,594 rates in 30 countries.
 - **Domestic Workers:** 112 rates in 24 countries.
 - **Unskilled and Semi-skilled Workers:** 4,547 rates in 14 countries.
 - **Piece Rate Workers:** 1,053 rates in four countries.
- Applied in 48 countries with 4,969 rates, most common in the Americas and low-mid income countries. Agricultural workers' rates are most frequent within this rationale.



Bar graph for percentage of countries with reducing poverty rationale, by continent and income class

Source: WageIndicator Minimum Wage Database MWDB, December 2023, country aggregated data, Africa N=55, Americas N=41, Asia N=50, Europe N=45, Oceania N=16, Total N=207
 No index=9, Low income N=25, Lower middle-income N=54, Upper middle-income N=51, High-income N=68, Total N=207

Ensuring productivity

- **Efforts to Maintain Competitiveness:**

- **Young Workers:**

- Rates often have breaks at 17 or 18 years, with some exceptions like Kosovo (under 35).
 - The Netherlands has detailed rates for ages 15-20, with an adult rate for 21 and over.
 - Total of 104 age-related rates across 15 countries.

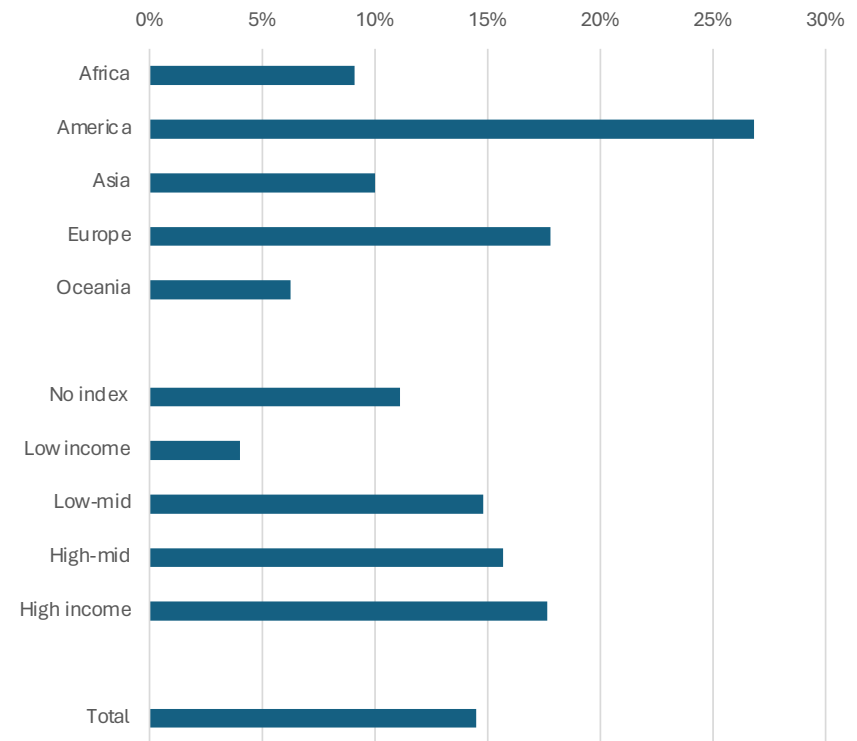
- **Export Processing Zones (EPZs) or Similar:**

- Terms include EPZ, FTZ, SEZ, etc.
 - 77 rates for EPZ-type facilities across six countries, mainly in the Americas.

- **Firm Size:**

- Indicated by employee count, size categories, or annual turnover.
 - Common categories: <10 employees, 11-50 employees, >50 employees.
 - MWDB includes 273 firm size-based rates from 14 countries.

- Applied in 30 countries with 454 rates, mostly in the Americas and Africa. Firm size differentiation common in the Americas and Africa, while Europe focuses on youth rates.



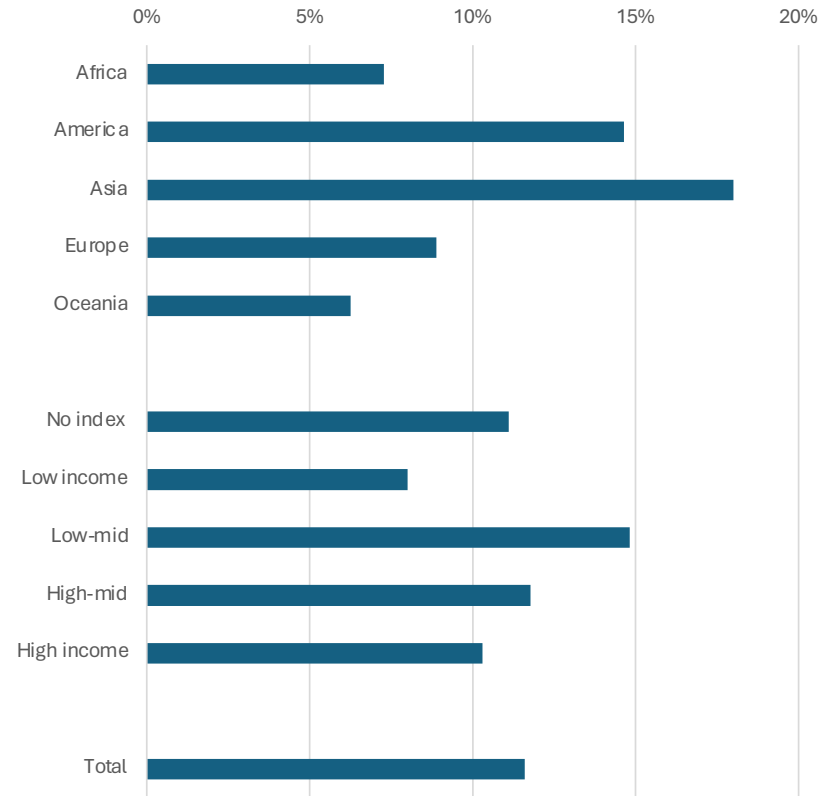
Bar graph for percentage of countries with ensuring productivity rationale, by continent and income class

Source: WageIndicator Minimum Wage Database MWDB, December 2023, country aggregated data, Africa N=55, Americas N=41, Asia N=50, Europe N=45, Oceania N=16, Total N=207
No index=9, Low income N=25, Lower middle-income N=54, Upper middle-income N=51, High-income N=68, Total N=207

Consumer Price Index policy

Countries are required by ILO Convention No. 131 to adjust minimum wages according to their Consumer Price Index (CPI).

- **Region-based Minimum Wage Rates:**
 - 15,549 region-based minimum wage rates across 24 countries (11.6% of countries and 78.8% of rates).
- **Regional Breakdown by Country:**
 - 11 countries detail rates for states or provinces, including Bangladesh, Brazil, China, India, Indonesia, Japan, Pakistan, Philippines, Russia, Vietnam, and USA.
 - China, Indonesia, Russia, and USA have additional city- or county-based rates.
 - India further breaks down rates into zones within states.
- Even with regional rates, some countries like USA and Russia maintain a country-wide Federal Minimum Wage.



Bar graph for percentages of countries with CPI rationale, by continent and income class

Source: WageIndicator Minimum Wage Database MWDB, December 2023, country aggregated data, Africa N=55, Americas N=41, Asia N=50, Europe N=45, Oceania N=16, Total N=207
No index=9, Low income N=25, Lower middle-income N=54, Upper middle-income N=51, High-income N=68, Total N=207

Mimicking collective bargaining

- **Occupation-based Rates:**

- 14,091 rates in 53 countries are specified by occupation or job title.
- Universality varies among countries, with some like the Philippines and USA having few occupation-based rates, while others like Ecuador and Zambia specify job titles in all rates.

- **Industry-based Rates:**

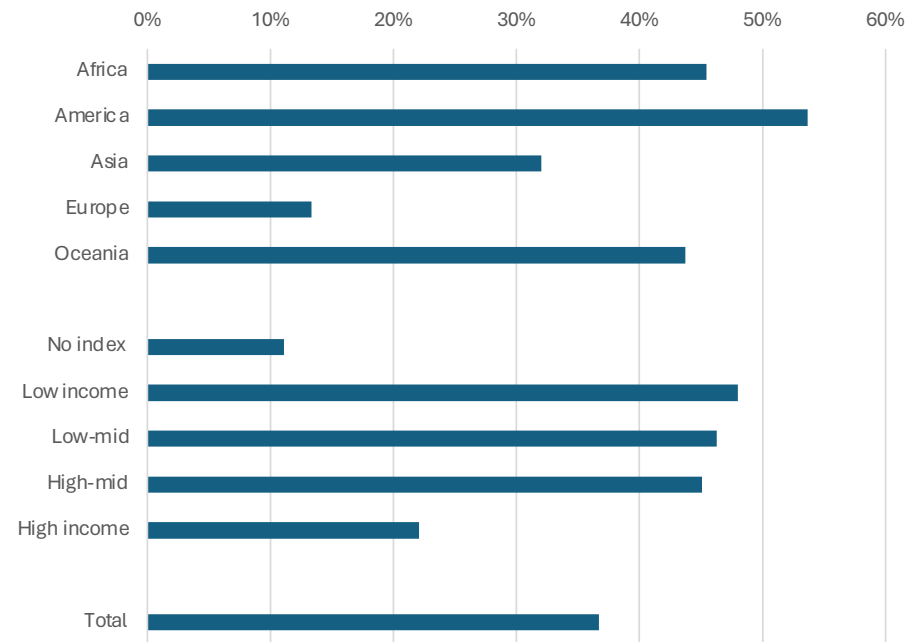
- 18,981 industry-based minimum wage rates across 59 countries.
- Phrasing ranges from broad activities like Agriculture, fishery, food manufacturing to narrow definitions like Banana plantations or Cinema (Distribution Side).
- Universality is high, with 39 of 59 countries having 80% or more industry-based rates.
- Manufacturing, Agriculture, forestry and fishing, Wholesale and retail trade, and Transportation and storage are the most common industries represented.

- **Global Application:**

- 76 countries employ the mimicking collective bargaining rationale, with a total of 20,767 rates.

- **Regional Trends:**

- The Americas prominently differentiate minimum wage rates according to this rationale, while Europe does so to a lesser extent.



Bar graph for percentages of countries with mimicking bargaining rationale, by continent and income class

Source: WageIndicator Minimum Wage Database MWDB, December 2023, country aggregated data,
Africa N=55, Americas N=41, Asia N=50, Europe N=45, Oceania N=16, Total N=207
No index=9, Low income N=25, Lower middle-income N=54, Upper middle-income N=51, High-income N=68, Total N=207

Summary

- **Relationships Between Rationales:**

- Full coverage rationales negatively associated with reducing poverty and mimicking bargaining rationales.
- Reducing poverty rationales strongly positively associated with mimicking bargaining rationales.

- **Relationship with ILO Conventions:**

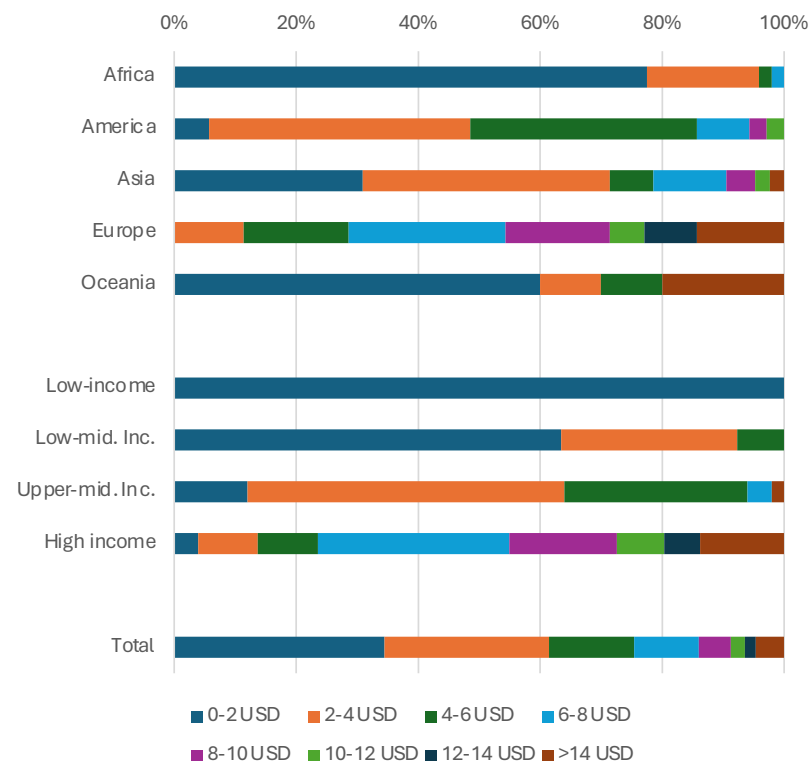
- Signature of ILO conventions impacts full coverage rationale.
- No significant impact of ILO conventions on other rationales.

- **Relationship with Collective Bargaining Coverage:**

- Low coverage of collective agreements may be compensated with a bargaining mimicking minimum wage setting.

Minimum wage levels

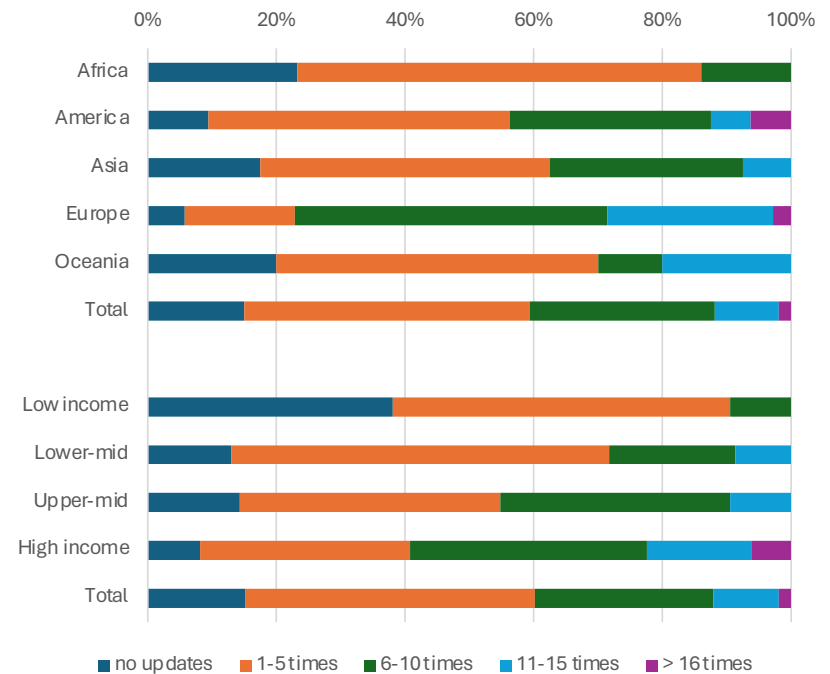
- vary greatly worldwide, ranging from slightly over 2 USD cents per hour in Burundi to over 19 USD in Switzerland in 2022.
- Across 156 countries, the average wage stands at 3.74 PPP-adjusted USD, with a 12% gender pay gap observed.
- influenced by factors such as the ensuring productivity rationale, regional location, and income level, but not by signatures of ILO conventions.
- Europe and Oceania exhibit higher rates while high-mid and high-income countries see increases



Stacked bar graph of wage class of PPP adjusted hourly minimum rates in 2022, by continent and income class
 Source: Country aggregated data of the WageIndicator Minimum Wage Database MWDB, December 2022, by PPP adjusted hourly federal/national minimum rates, median rates of regional defined rates and median rates for countries without such rates in 2022
 Africa N=49, Americas N=35, Asia N=42, Europe N=35, Oceania N=10, Total N=171
 Low income N=18, Lower middle-income N=52, Upper middle-income N=50, High-income N=51, Total N=171

Minimum updating policies 2014-2023

- countries updated their minimum wages approximately 4.5 times between Jan 2014 and Dec 2023, with a frequency of about every 2.2 years for 160 countries.
- 24 countries did not update at all during the period.
- Countries with multiple minimum wage rates tend to update them simultaneously, with some like Argentina updating as frequently as every half year.
- Countries with full coverage or focusing on productivity tend to update their minimum wages more frequently

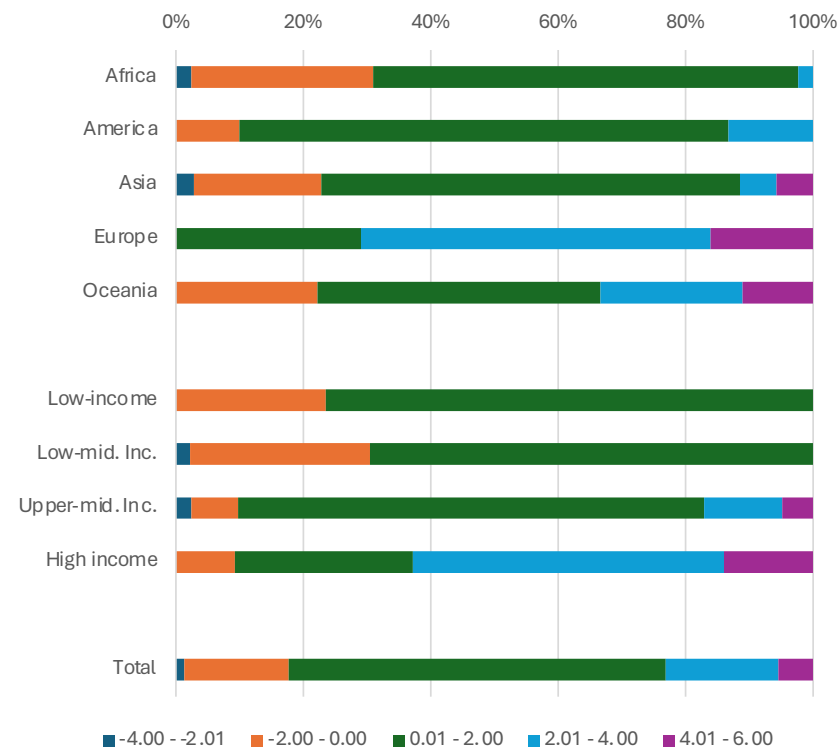


Stacked bar graph of updating frequencies by class between Jan-2014 and Dec-2023, by continent and income class

Source: Country aggregated data of the WageIndicator Minimum Wage Database MWDB, December 2023, mean updating frequencies in case of countries with multiple minimum wages with different updating dates for countries with valid rates on January 2014
 Africa N=43, Americas N=32, Asia N=40, Europe N=35, Oceania N=10, Total N=160
 Low income N=21, Lower middle-income N=46, Upper middle-income N=42, High-income N=49, Total N=158

Minimum wage increases 2014-2022

- ~18% of the 147 countries analysed experienced a decrease in minimum wage levels between 2014 and 2022, while about three-fifths saw minimal increases ranging from 0 to 2 PPP-adjusted USD.
- High-income countries generally exhibited significant increases, contrasting with Africa where decreases or minor rises were observed,
- none of the rationales or the signing of ILO Convention 131 significantly influenced wage increases.

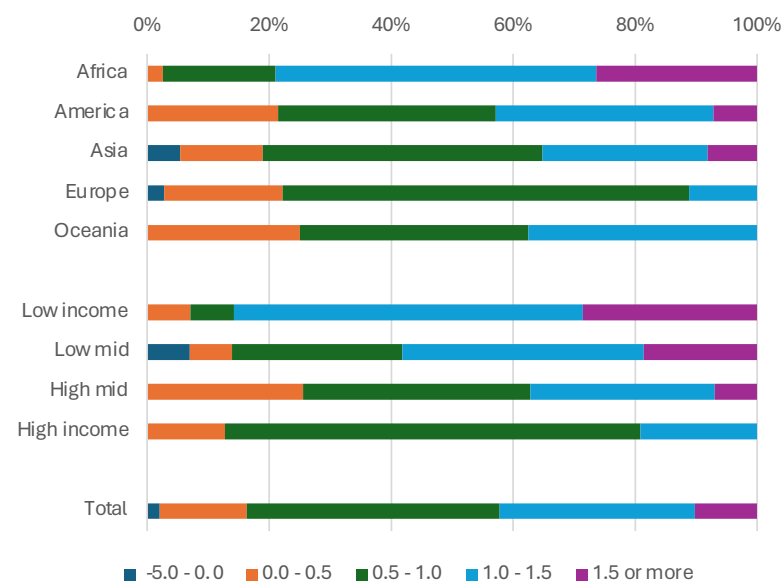


Stacked bar graph of increases of reference minimum wage in PPP adjusted USD between 2014 and 2022, by continent and income class

Source: Country aggregated data of the WageIndicator Minimum Wage Database MWDB, December 2023, mean updating frequencies in case of countries with multiple minimum wages with different updating dates for countries with valid rates on January 2014
 Africa N=42 Americas N=30, Asia N=35, Europe N=31, Oceania N=9, Total N=147
 Low income N=17, Lower middle-income N=46, Upper middle-income N=41, High-income N=43, Total N=147

Keeping up with inflation 2015-2022

- only 3 out of 147 countries experiencing minimum wage increases surpassing inflation over a 9 year period.
- ~ 14% of countries saw minimum wage increases falling short of inflation by less than 0.5 percentage points, while 41% with a gap between 0.5 – 1% points, and 32% had a gap between 1 -1.5% points; notably, 10% of countries faced a gap exceeding 1.5 % points.
- In Africa and low-income countries, minimum wages frequently lagged behind inflation, indicating a significant loss of purchasing power for workers on minimum wages over the last nine years.
- updating frequency is the sole factor strongly associated with minimum wages keeping up with inflation, with countries updating more than four times in the nine-year period having odds ratios 2.0 times
- neither the rationales nor the signing of ILO Convention 131 significantly influenced wage increases relative to inflation.



Stacked bar graph of the percentage points difference between the percentage inflation 2015-2022 and the percentage increase of the reference minimum wage in LCU 2015-2022, by continent and income class

Source: Country aggregated data of the WageIndicator Minimum Wage Database MWDB, December 2023, countries with missing or unreliable data were excluded, namely Argentina, Barbados, Burundi, Chad, Eritrea, Nauru, Palau, Samoa, Syria, Venezuela
 Africa N=40 Americas N=28, Asia N=38 Europe N=36, Oceania N=8, Total N=150
 Low income N=16, Lower middle-income N=44, Upper middle-income N=43, High-income N=47, Total N=150

THANK YOU