Taxation, Inequality and Development
The case of Brazil

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Motivation

- Is it possible to design a tax system that serves equity and efficiency?

- Is progressive taxation only applicable when a country has reached an advanced level of industrial development?

- Open up space for ideas and debate in a country where discontent is high.
  - *"High taxes, poor public services"*

- For further details see: Morgan (2017, 2018a); [World Inequality Report 2018](#) ; J.R. Afonso, M.R. Lukic, R.O. Orair & F.G. Silveira (2017) (eds.), *Tributação e Desigualdade*, Letramento & FGV Direito Rio, 2017, Gobetti & Orair (2016)…

Outline

- Taxation and Economic Development

- The Development of Fiscal Revenues in Brazil

- Income Inequality and Taxation in Brazil
    A focus on the personal income tax (IRPF)

- Proposals for Tax Reform

- Final Remarks

Taxation and economic development

THE PURPOSE OF TAXES

1. **Cover spending (current and capital expenditures)**
   Civil service, education, health, communication, energy & transport systems, social transfers…

2. **Maintain price stability**
   Combat inflation by taking money out of circulation (=savings)

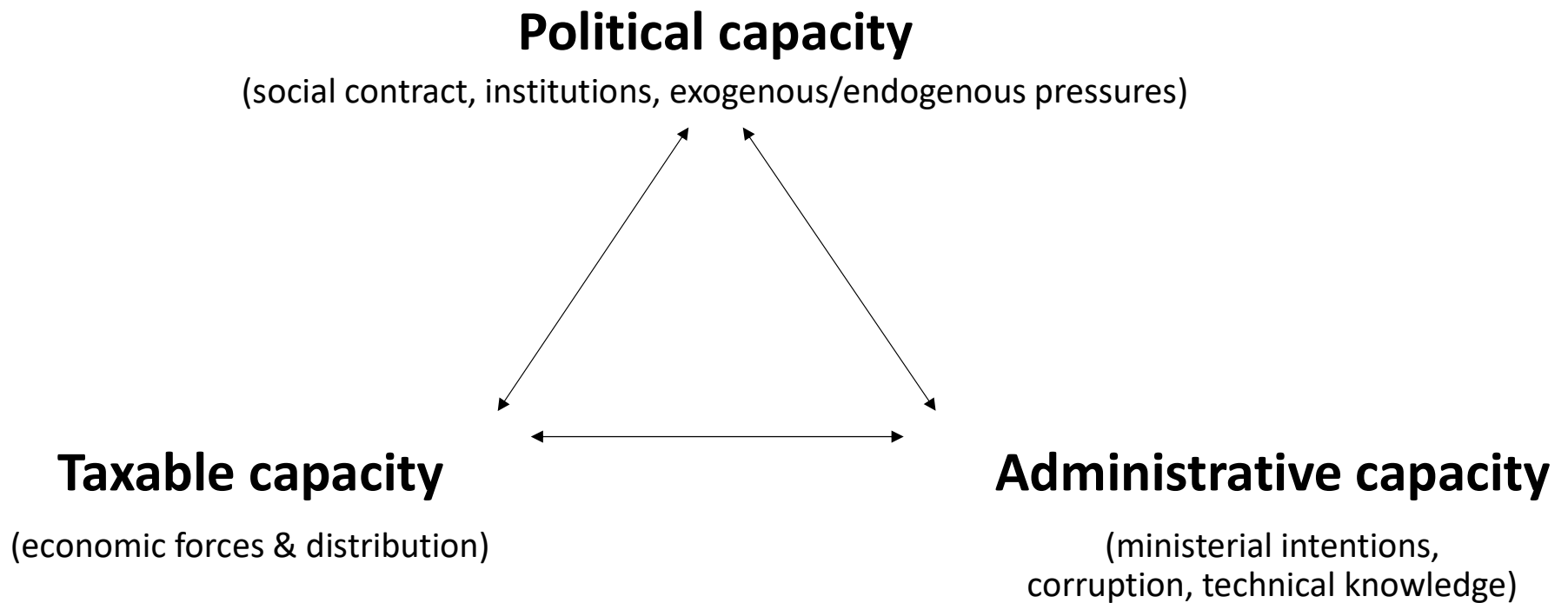3. **Regulate incomes/wealth in society**
   Define the bounds of a socially acceptable schedule of income/wealth
   Make socially excessive and economically unproductive incomes costly to sustain
   Encourage particular behaviours (e.g. investment in productive capacity)

Taxation and economic development

## Kaldor's triangle of fiscal reform (Kaldor, 1963)

Political capacity

(social contract, institutions, exogenous/endogenous pressures)

Taxable capacity

(economic forces & distribution)

Administrative capacity

(ministerial intentions, corruption, technical knowledge)

The Development of Fiscal Revenues in Brazil

Evolution of GDP per capita in Brazil: 1920-2016

GDP per capita (2016 Reais)
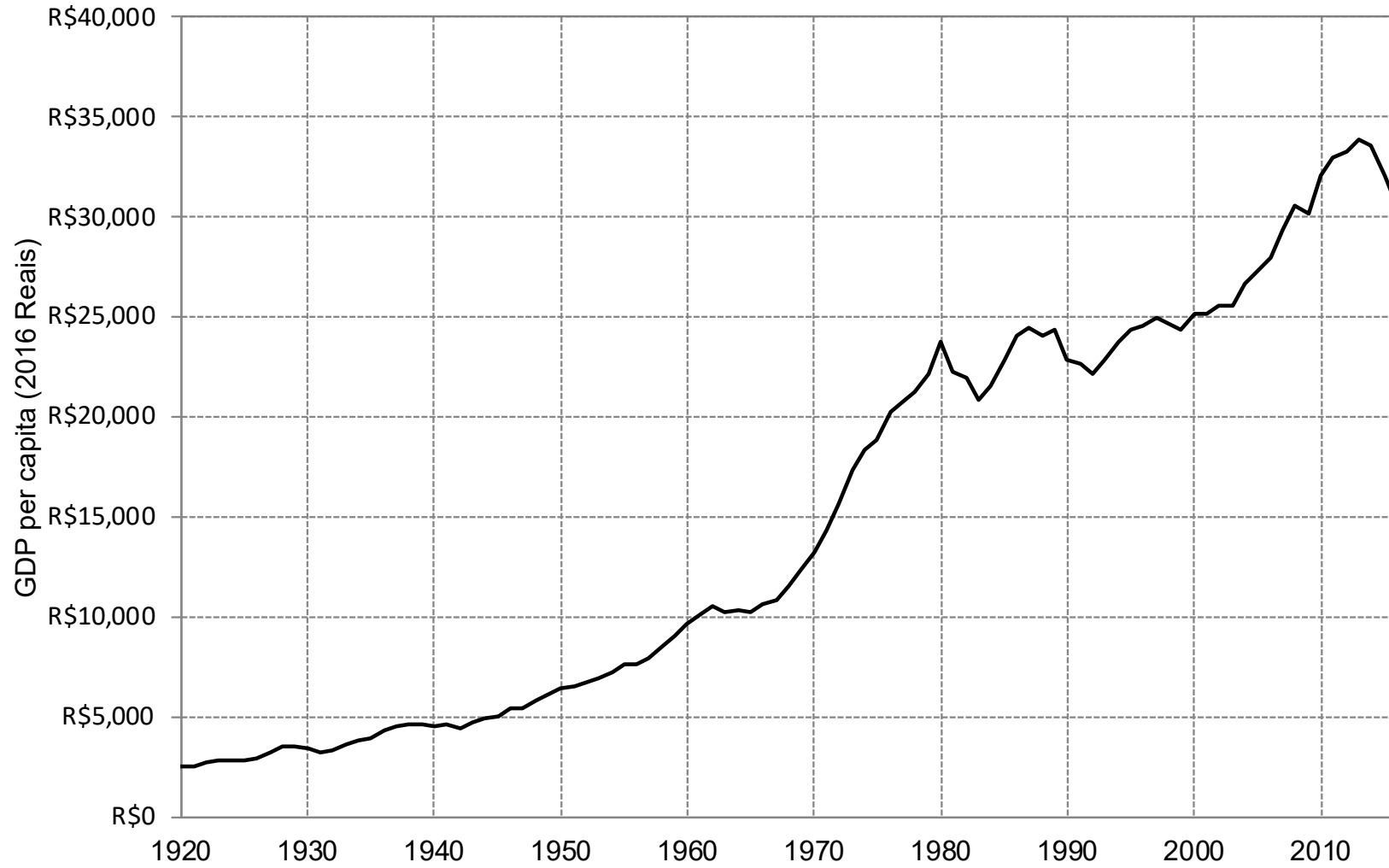
Composition of tax revenues in Brazil: 1932-2013
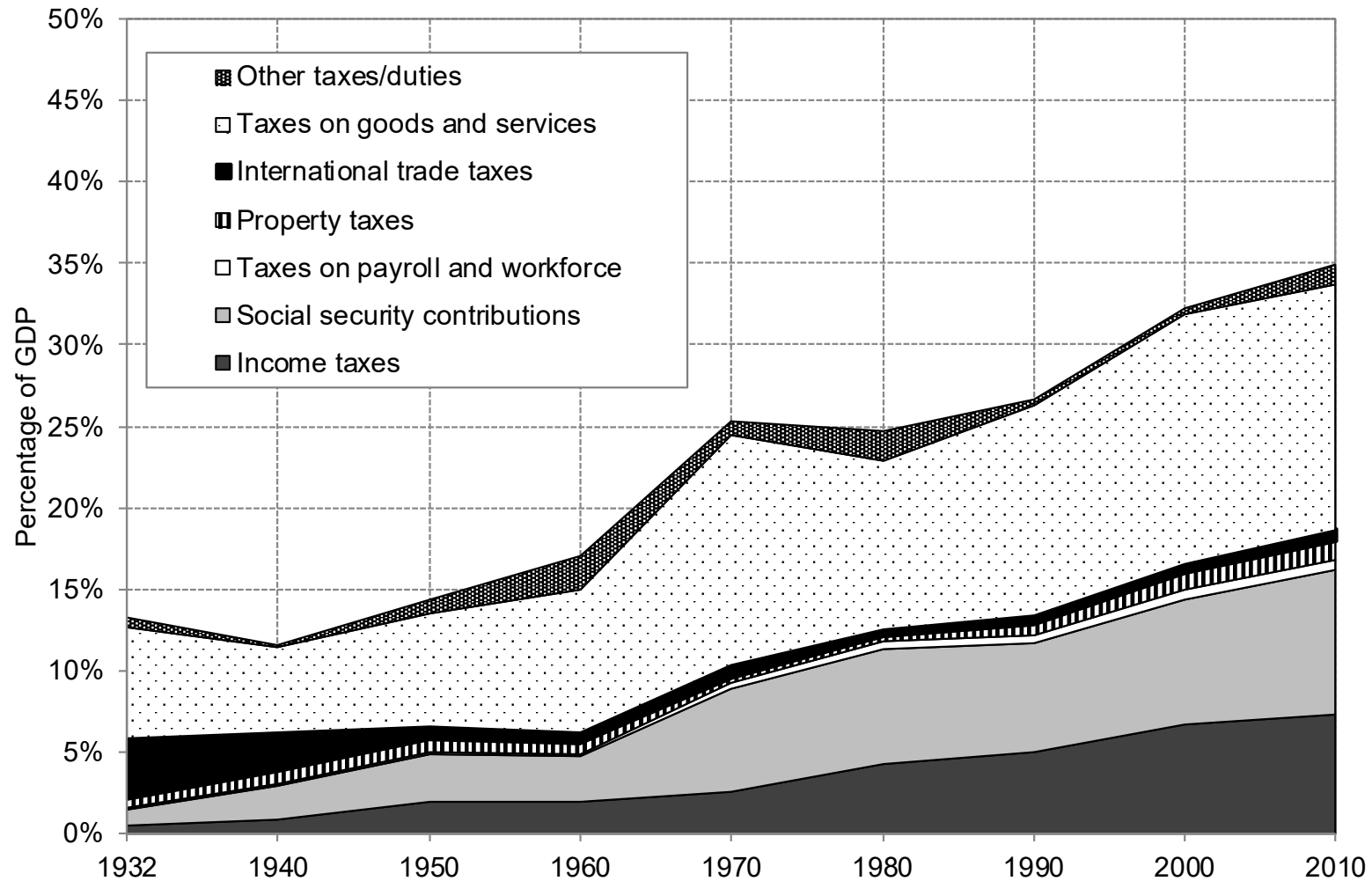
Notes: authors' calculation for 1932-1970 using data from IBGE; 1980-1989 from Varsano et al (1998); 1990-2013 from OECD/ECLAC/CIAT/IDB (2015). 1932-1970 are linearly interpolated from point estimates for each decade, 1980-2010 represent decennial averages. 2010 is the average of 2010-2013. Morgan (2018b)

Fiscal revenues in selected countries (average 2000-2010, % total taxation)								
	France	Germany	Sweden	U.K.	U.S.	Mexico	OECD average	Brazil
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Total tax revenue (% GDP)	**42.3%**	**34.9%**	**45.5%**	**33.7%**	**25.4%**	**17.5%**	**33.6%**	**32.8%**
Income taxes	23.6%	29.1%	37.5%	38.5%	45.2%	26.7%	34.4%	20.7%
Social security contributions	37.4%	39.0%	26.7%	18.4%	25.3%	16.0%	25.3%	22.3%
Property taxes	7.5%	2.4%	2.9%	12.0%	11.9%	1.6%	5.5%	3.1%
Consumption taxes	25.3%	29.0%	26.8%	30.7%	17.6%	53.6%	32.9%	51.4%
Other taxes	6.0%	0.0%	5.8%	0.0%	0.0%	2.2%	1.6%	2.8%

Notes and sources: Estimates for Brazil are from the Secretaria de Receita Federal. The data sources used for OECD countries are from OECD Revenue Statistics. Other taxes include taxes on payroll and workforce and other duties. We report 2000-2010 averages so as to smooth business cycle variations.

Sources: Morgan (2018b)

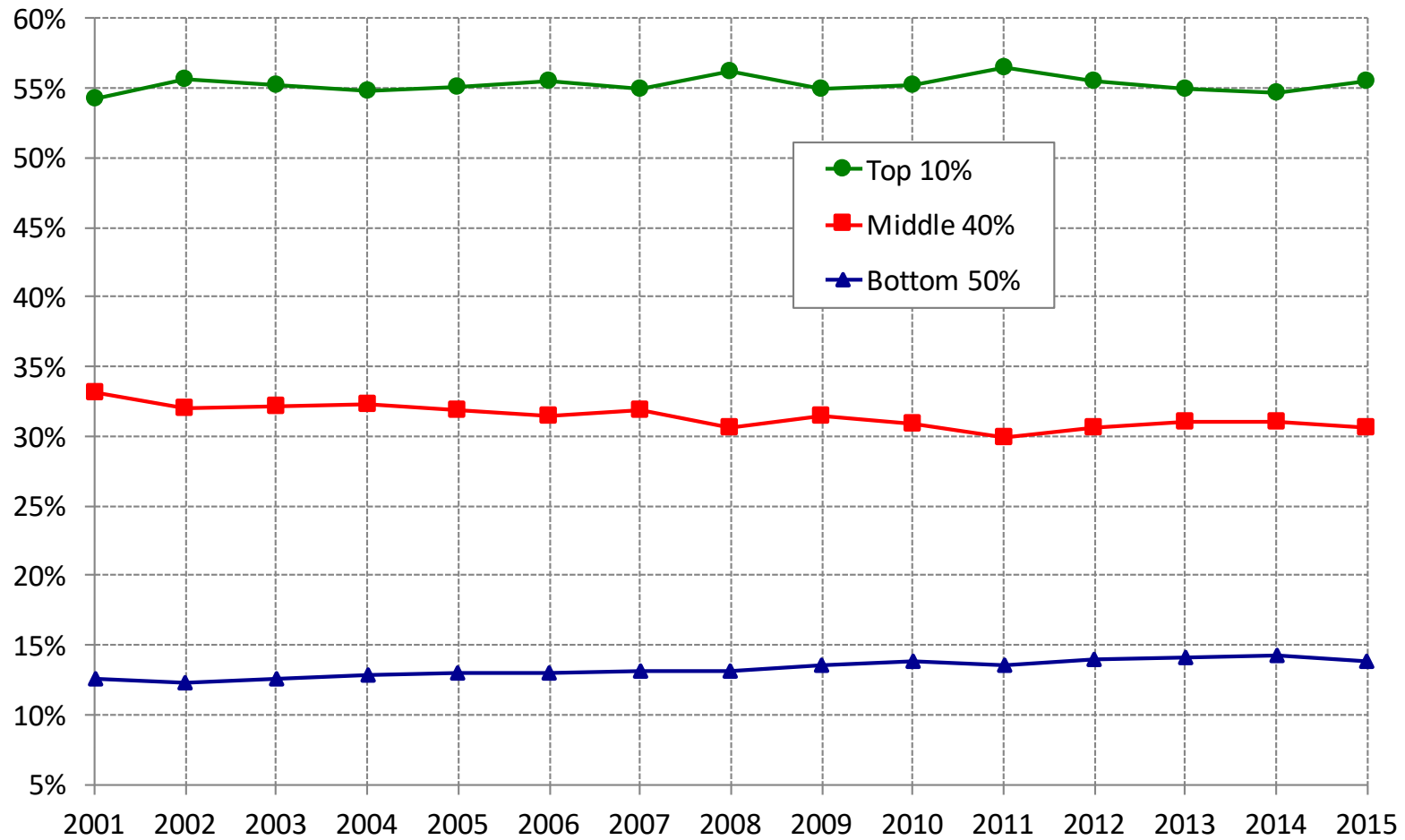Evolution of public social spending in Brazil, 1932-2015
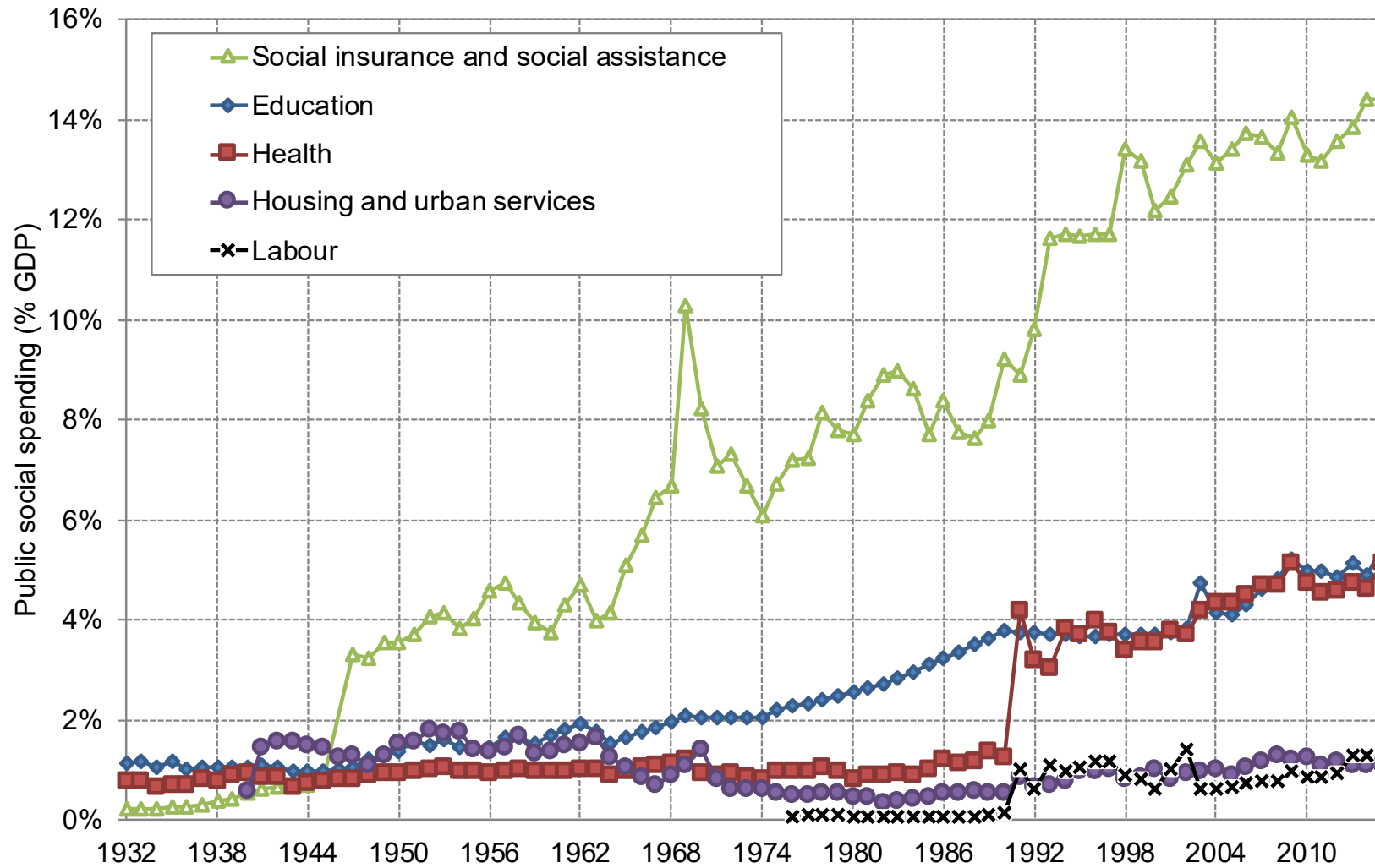
Sources: Morgan (2018b)

Income Inequality and Taxation in Brazil

With a focus on the personal income tax (IRPF) and some considerations on wealth taxation

Figure 3. Income inequality in Brazil: DINA estimates

Notes: Distribution of pretax national income (before taxes and transfers, except pensions and unemployment insurance) among adults. Corrected estimates (combining survey, fiscal and national accounts data). Equal-split-adults series (income of married couples divided by two). Morgan (2017).

Figure 1. Bottom 50% vs Middle 40% vs Top 10% income shares
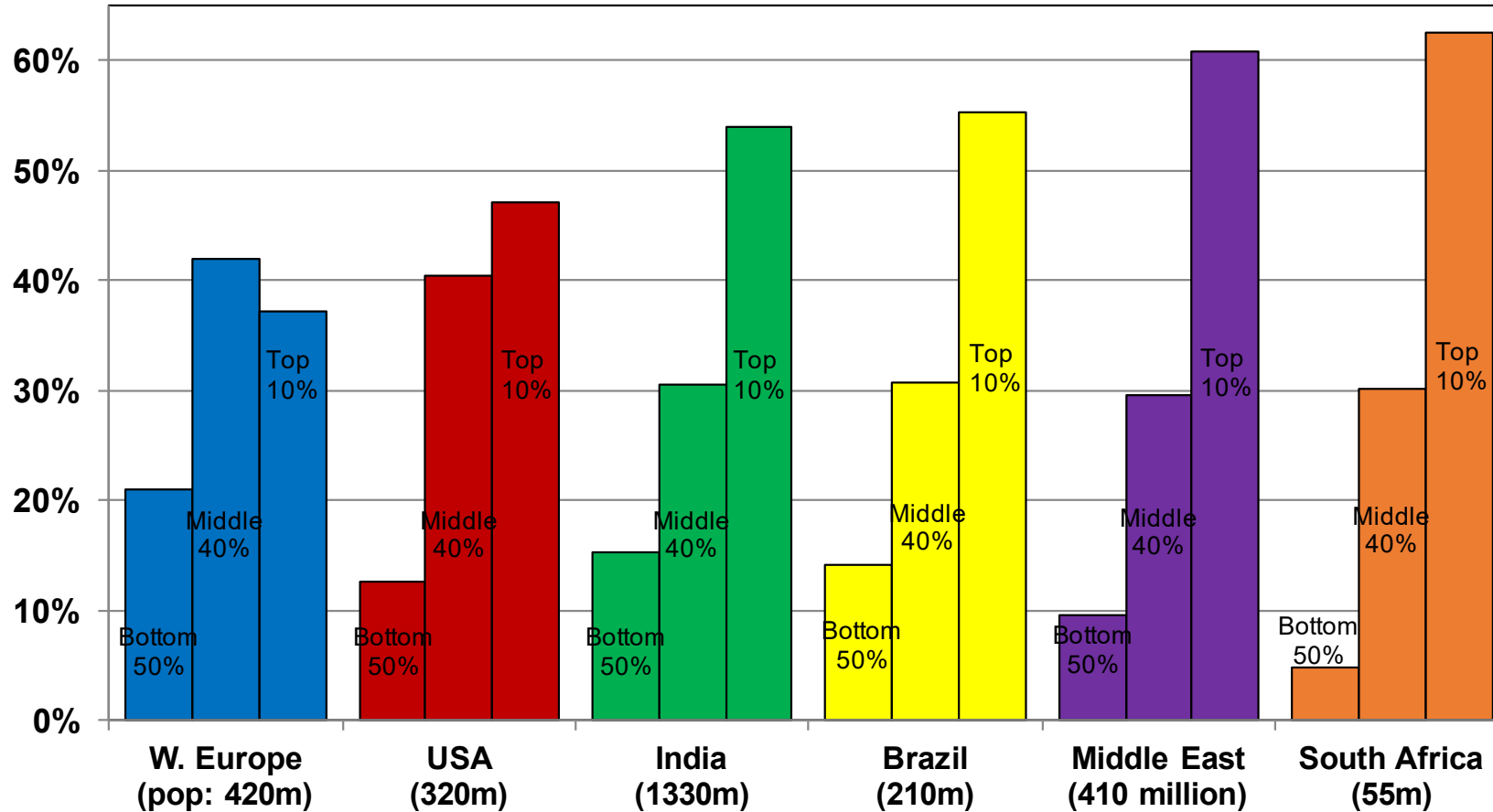
Distribution of national income (before taxes and transfers, except pensions and unempl. insurance) among adults. Corrected estimates combining survey, fiscal, wealth and national accounts data. Equal-split series (income of married couples divided by two), except for South Africa (individuals). Latest years available (2012-2016). Source: WID.world.

Table A.1 Income Thresholds, Averages and Shares in Brazil: 2015

Income groups (distribution of per adult pre-tax income)	Number of adults	Income threshold (Reais, R$)	Average Income (Reais, R$)	Income Share
Full Population	142,520,768	R$ 0	R$ 35,857	100.0%
Bottom 50%	71,260,384	R$ 0	R$ 9,955	13.9%
Middle 40%	57,008,307	R$ 17,249	R$ 27,396	30.6%
Top 10%	14,252,077	R$ 49,129	R$ 199,209	55.6%
incl. Top 1%	*1,425,208*	*R$ 306,823*	*R$ 1,016,507*	28.3%
incl. Top 0.1%	*142,521*	*R$ 1,593,218*	*R$ 4,894,879*	13.7%
incl. Top 0.01%	*14,252*	*R$ 7,474,030*	*R$ 23,168,274*	6.5%
incl. Top 0.001%	*1,425*	*R$ 35,165,676*	*R$ 111,064,489*	3.1%

Notes: This table reports statistics on the distribution of national income in Brazil in 2015. The unit is the adult individual (20-year-old and over; income of married couples is split into two). In 2015, 1 US dollar = 3.3 reais (market exchange rate) or 1.85 reais (purchasing power parity). Income corresponds to pre-tax national income. Fractiles are defined relative to the total number of adult individuals in the population. Corrected estimates combine national accounts, surveys and fiscal data.

Sources: Morgan (2017)

The taxation of incomes in Brazil

- Distributed monetary pre-tax income (fiscal income) ≈ 70% of national income (Y)

- Incomes in DIRPF ≈ 50% of Y (≈ 20% of population)
- Taxable income in DIRPF ≈ 30% of Y (≈ 20% excluding deductions)

- Earnings in social contributions ≈ 20% of Y (≈ 40% of population)

- Taxable income (corporate profits) in IRPJ+CSLL ≈ 20% of Y
  - Undistributed profits ≈ 10% of Y
  - Household share of undistributed profits ≈ 6% of Y

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The personal income tax (IRPF)

In DIRPF three legal categories of gross income are reported:

1. **Taxable income** (subject to progressive income tax: 0-27.5%)
   Wages/salaries, pensions, self-employed labour income, rent

2. **Exclusively taxed income** (withheld at source: 15-22.5%)
   Capital gains, interests from financial investment (fixed and variable income investments), 13th salary…etc

3. **Tax exempt income** (tax rate: 0%)
   Distributed business profits and dividends, indemnity income, exempt parts of agricultural labour income and pension income, interests from savings accounts and capital withdrawals from small-sized enterprises…etc

The personal income tax (IRPF)

Taxable income – *deductions:*

- *social security contributions (public & private funds)*
- *dependents (children, spouse, parents)*
- *education expenses, medical expenses (without limit)*
- *business expenses of independent workers*
- *alimony (income maintenance of ex-spouse/relatives)*
- *standard discount (desconto padrão of 20% of taxable income).*

= **Tax base** → progressive income tax schedule applies

Marginal tax rates for personal income tax base in 2015 in Brazil

| Tax base in current R$	Marginal rate	Affects approx.
0 – 22,500	Exempt	Bottom 85%
22,500 – 33,477	7.5%	Top 15-10%
33,477 – 44,476	15.0%	Top 10-5%
44,476 – 55,373	22.5%	
Above 55,373	27.5%	Top 5%

Source: Receita Federal do Brasil

Fiscal composition of total declared personal income in Brazil, 1998-2015
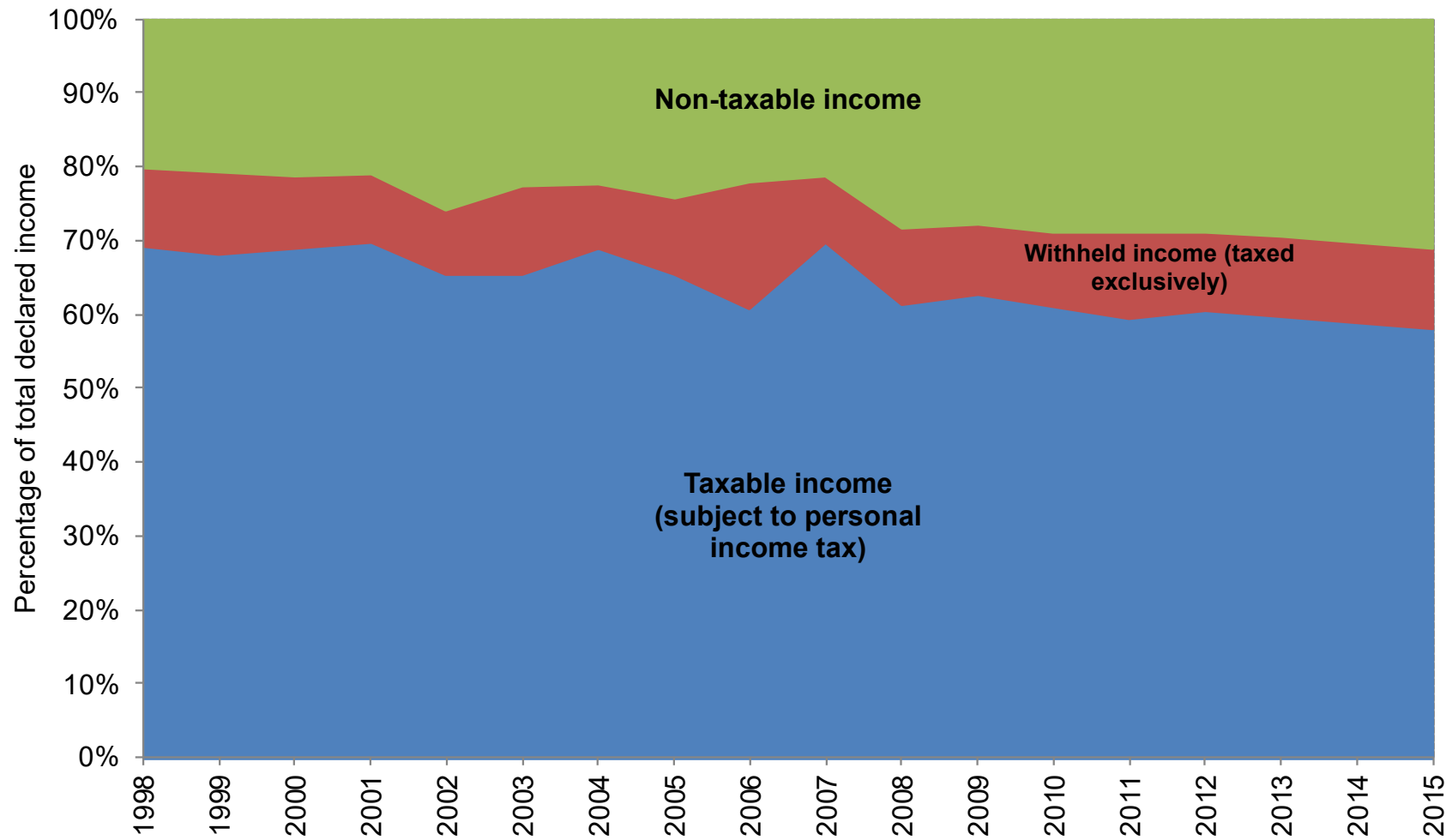
Sources: authors' calculations based on income tax data from the *Receita Federal*. Morgan (2018a)
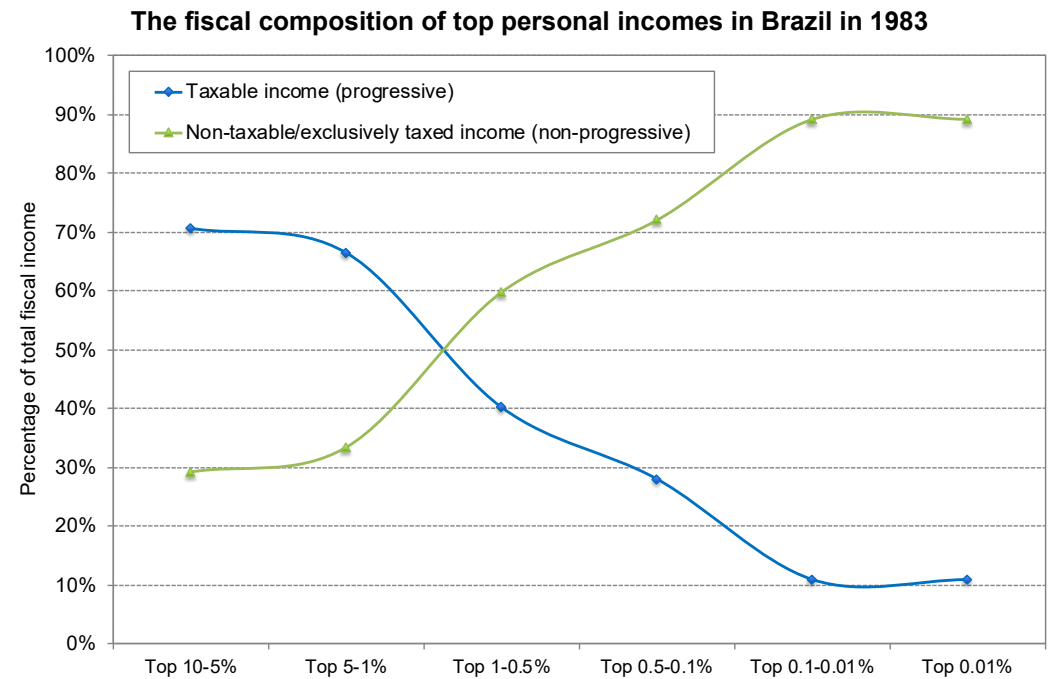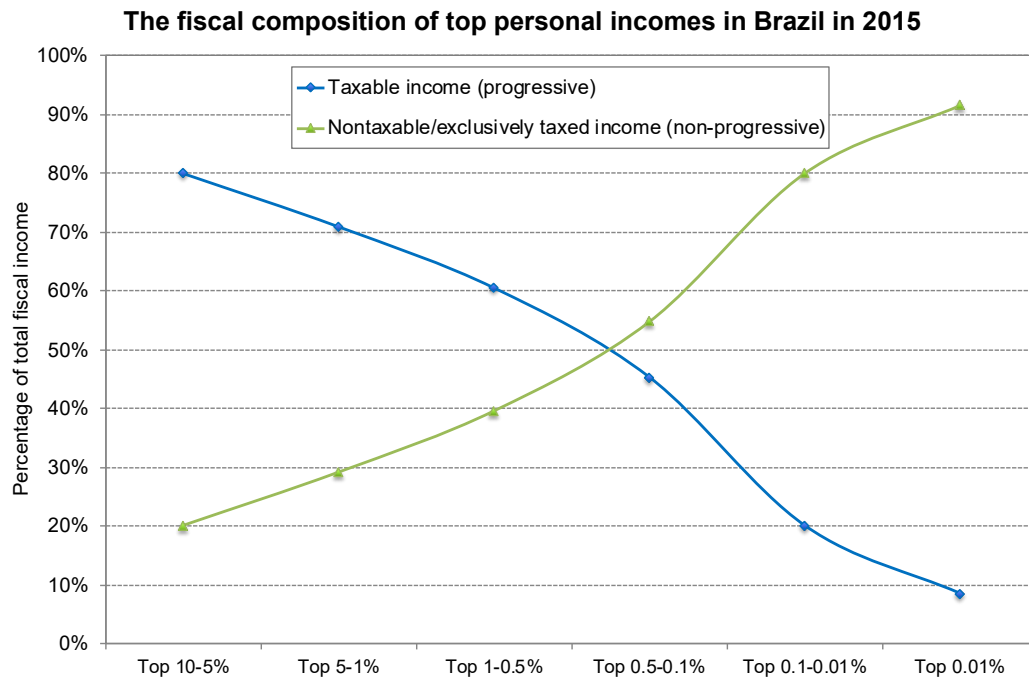
How progressive is the IRPF in Brazil?

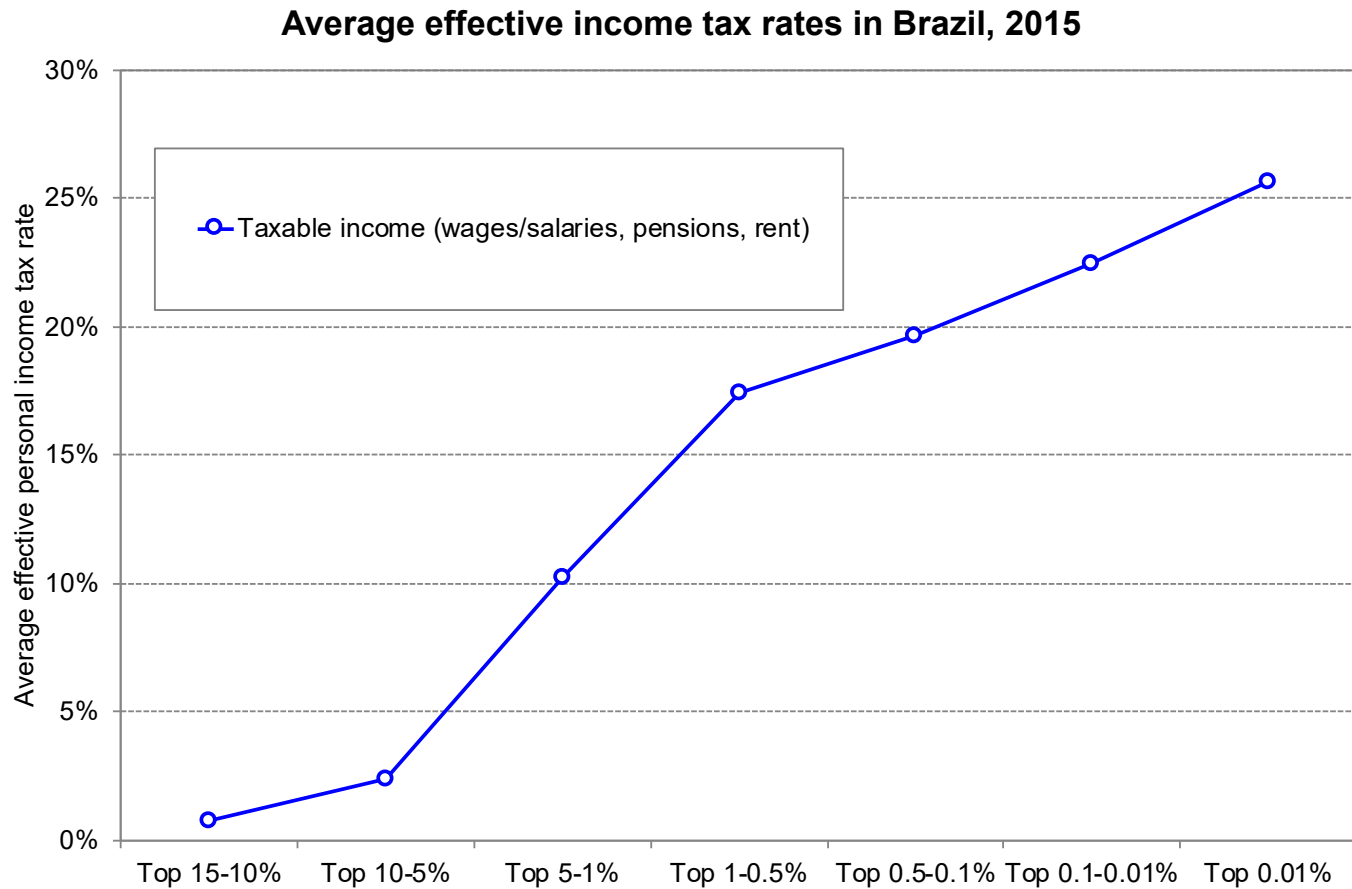**The fiscal composition of top personal incomes in Brazil in 2015**
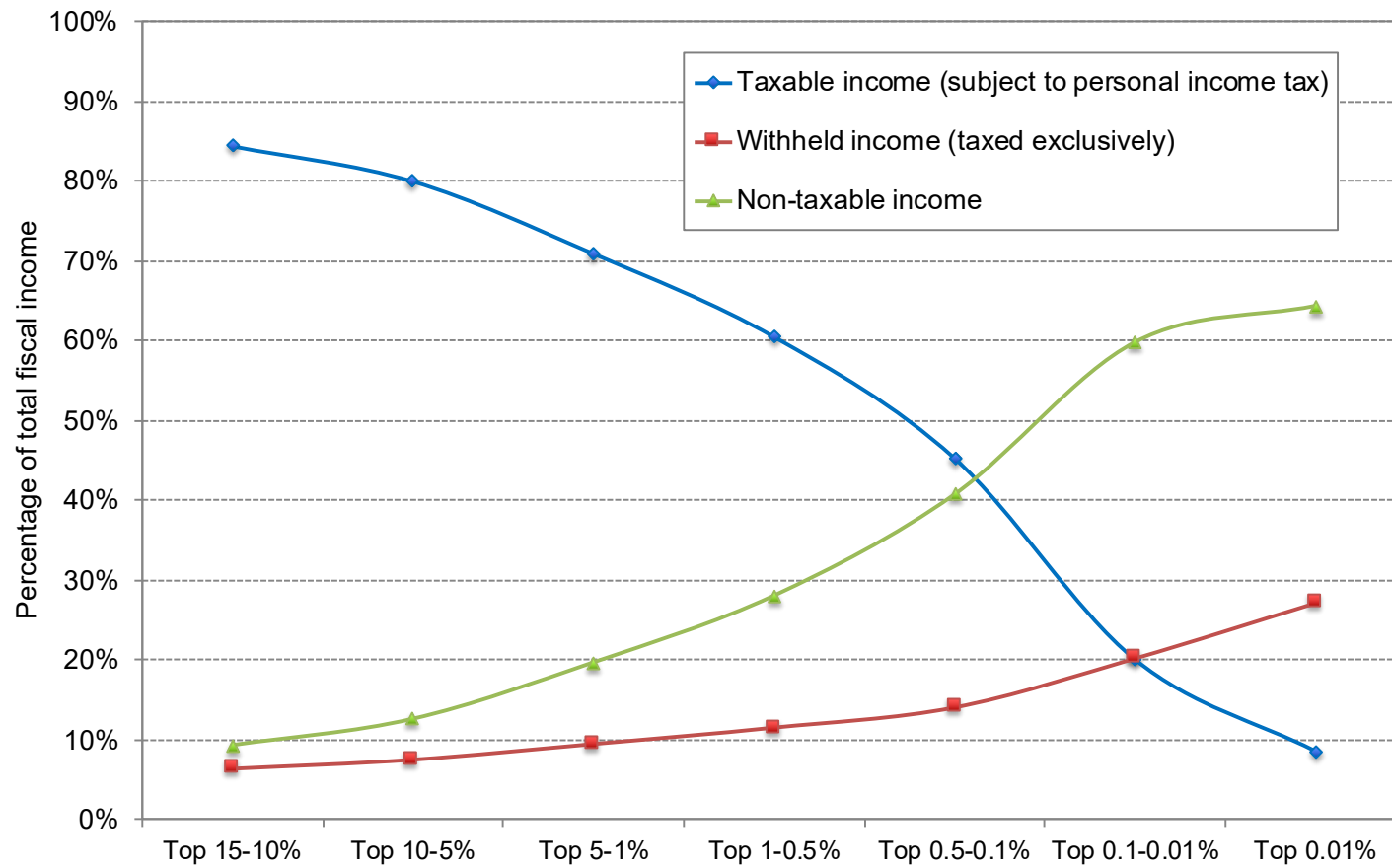
Sources: authors' calculations based on income tax data from the *Receita Federal*. Morgan (2018a).

How progressive is the IRPF in Brazil: present vs past

The fiscal composition of top personal incomes in Brazil in 2015

The fiscal composition of top personal incomes in Brazil in 1983

Sources: authors' calculations based on income tax data (IRPF) from the *Receita Federal*.

How progressive is the IRPF in Brazil?

Average effective income tax rates in Brazil, 2015

Sources: authors' calculations based on income tax data from the *Receita Federal*. Morgan (2018a).

How progressive is the IRPF in Brazil?

Average effective income tax rates in Brazil, 2015
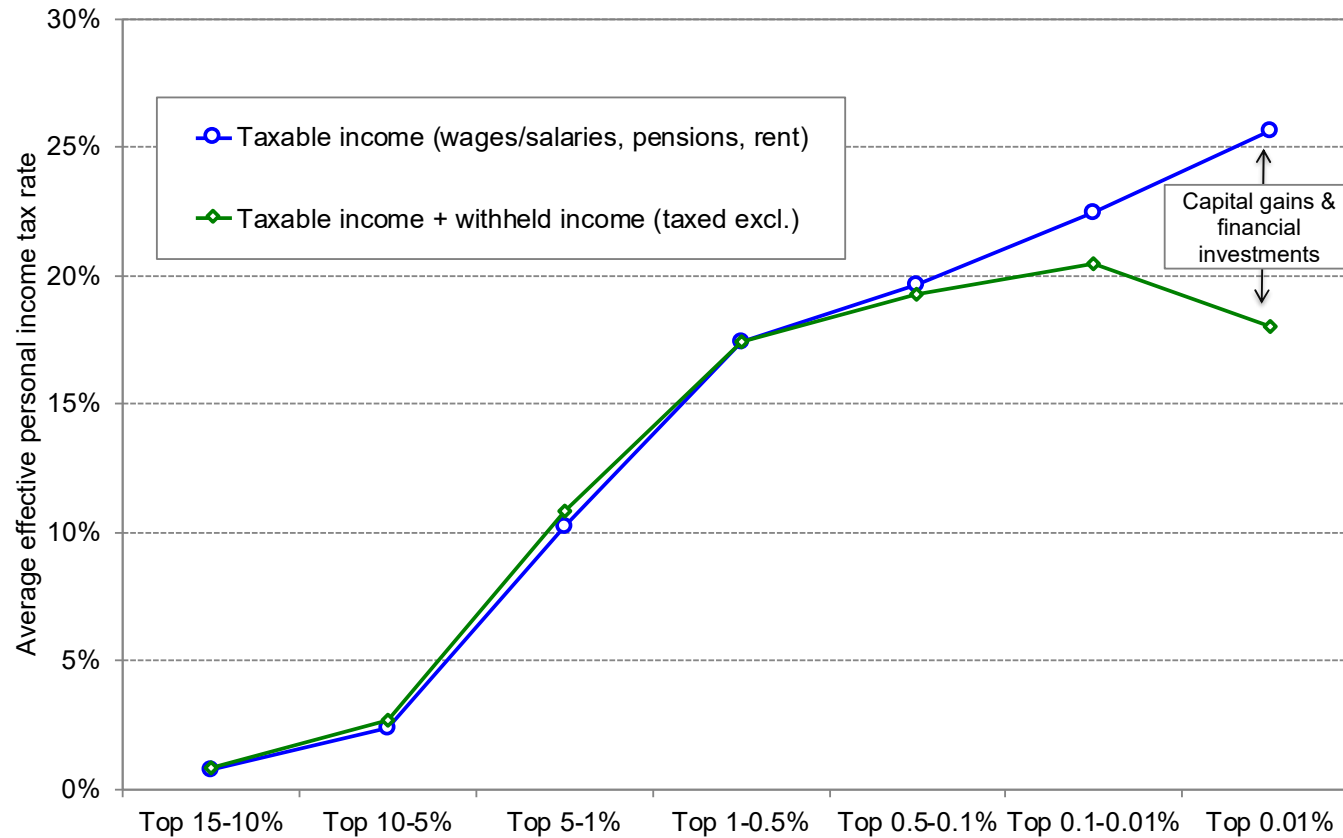

Sources: authors' calculations based on income tax data from the *Receita Federal*. Morgan (2018a).

How progressive is the IRPF in Brazil?
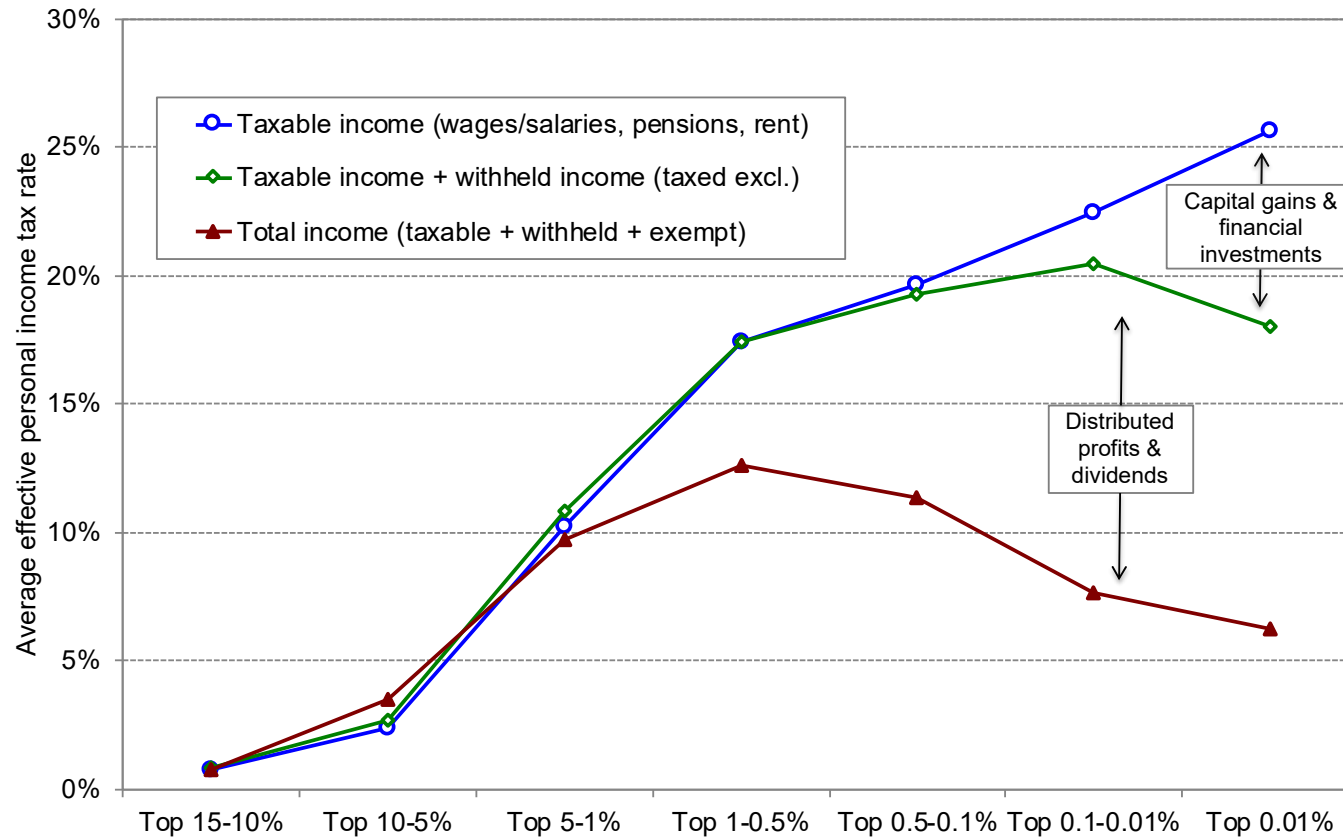
Average effective income tax rates in Brazil, 2015

Sources: authors' calculations based on income tax data from the *Receita Federal*. Morgan (2018a)

Taxation, inequality & development

- Low average tax rates from low marginal tax rates & regressive exemptions (not deductions).

- Low marginal tax rates make it easier for individuals who have to bargain to increase their compensation (e.g. corporate executives) to receive a higher income (Piketty, Saez, and Stancheva , 2014: "compensation bargaining elasticity").

- Macro implications: the fiscal separation of income can influence the forms of remuneration chosen by business owners (dividends, capital gains, share buybacks, retained earnings).

- Key issue: design an income tax system that encourages real productive reinvestment over rent extraction.

Productive reinvestment vs rent extraction

- **Fiscal incentives and personal distribution**
  - Lure of exemptions for distributed profits

- **Financial constraints and personal distribution (interest rates)**
  - Necessity of retained earnings to finance investment given high interest rates
  2000-2015 SCN:
  - Interests + dividend payments of nonfinancial corporations ≈ 2/3 of corporate profits.
  - Retained earnings ≈ 40% of profits → grew at expense of distributed profits (esp. interests) ≈ same growth as profits & fixed capital formation (3% per year)

- **The destination of retained earnings**
  - Fixed capital investment vs financial applications...?
  - Stock of financial assets / stock of fixed productive capital..?
  - Increase in rate of financialization 2000-2008 from 55% → 75% (Bruno et al. 2011).

Proposals for tax reform

Proposals for the income tax

- Brazilian tax system = <u>very complex and opaque</u>. Fiscal niches benefit incomes not equally held in distribution (capital income). The income tax becomes increasingly regressive within top 1% (1.5 million people).

- **Reforms on the margin**

1. <u>Reform A:</u> tax distributed profits/dividends exclusively at source (15%). Revenue-raising & inequality reducing (Gobetti & Orair, 2016)

2. <u>Reform B:</u> bring distributed profits/dividends into IRPF schedule (0-27.5%) More revenue-raising & inequality reducing (Gobetti & Orair, 2016) + exclusively taxed incomes

Proposals for the income tax

- **Complete reform: replace with a <u>new</u> personal income tax**

1. Comprehensive personal income tax
   - Single progressive schedule for all labour and capital incomes → withheld and taxed at source
   - Replace all existing taxes and levies on income (incl. social contributions = same tax base)

2. Dual income tax
   - Unearned investment income vs earned labour income
   - Comprehensive personal income tax (IRPF) vs corporate income tax (IRPJ)

- Additional rates to increase progressivity?

Top Marginal Income Tax Rates, 1900-2017
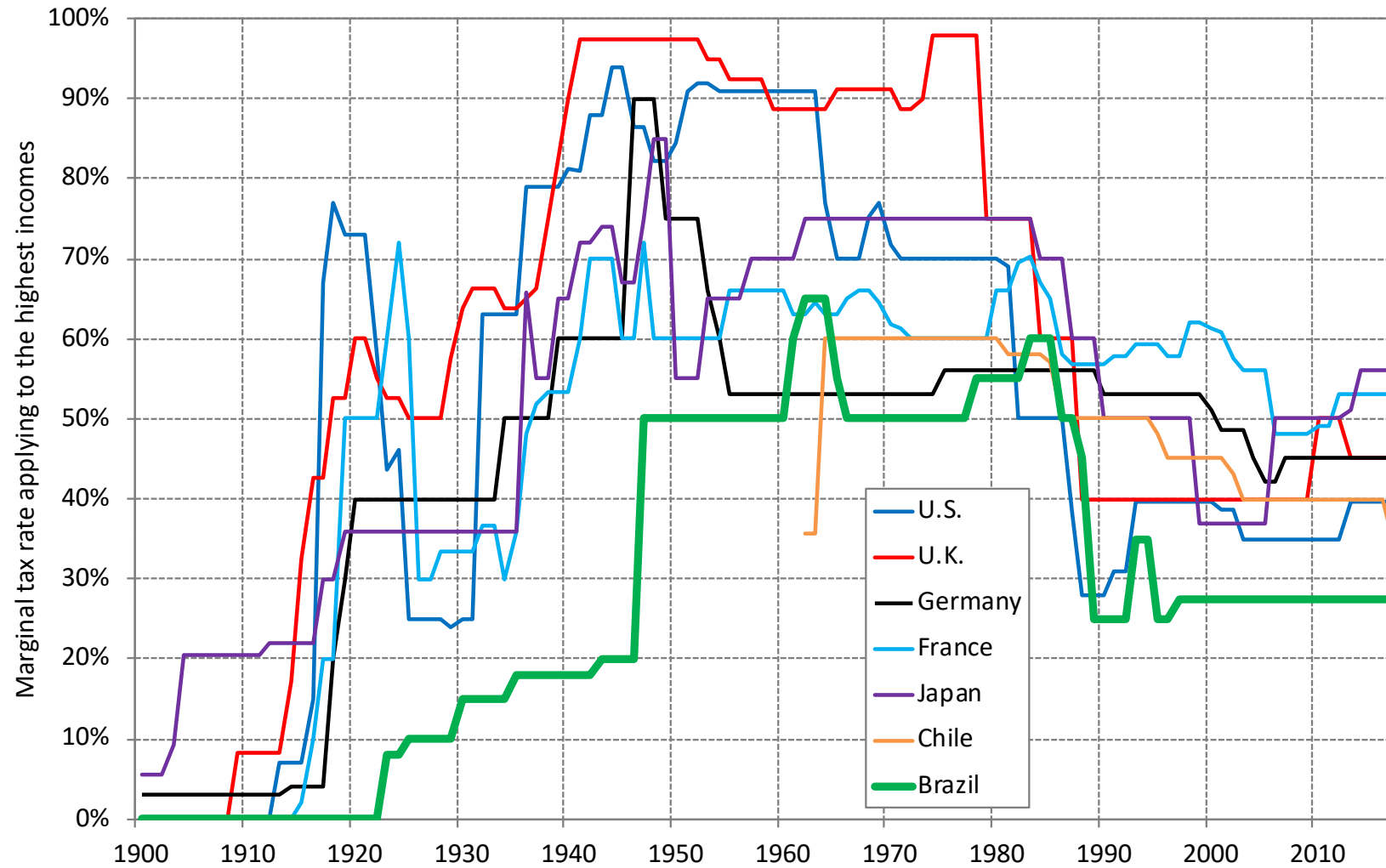
Sources: *Receita Federal* for Brazil. Flores et al. (2018) for Chile. Piketty (2014) and updates for other countries. See wir2018.wid.world/methodology.html for data sources and notes.

General incidence of taxes in Brazil

- IRPF + SSCs: joint progressivity?

- Negative impact of indirect taxes: regressive incidence across the distribution (Silveira, Rezende, Afonso, & Ferreira, 2013; Higgins & Pereira, 2013;…)
    - Impact of high levies on basic consumption goods & fragmented + complex tax base.

- What about corporate tax (IRPJ)?
    - Complex with multiple regimes depending on size of company & exemptions
    - Re-orientate tax to reward fixed productive capital investment, instead of profit withdrawals or financial purchases?

- What about property/wealth taxes? (Admin capacity exists: DIRPF)
    - Stock of wealth (financial and nonfinancial): ≈ 400% of Y (Bauluz & Morgan, forthcoming)
   - Inheritance (see next slides)

For a more comprehensive reform analysis see Afonso et al. (eds., 2017) and Gobetti & Orair (2018). (2018).

Taxation of inheritance

- **Imposto sobre Transmissão Causa Mortis e Doação (ITCMD)**
  - State-level tax
  - "Progressive" in 10 of 27 states with rates varying from 1-8% on widely varying thresholds per state.
  - Max rate permitted by 1988 constitution = 8%.
  - <= 1% of state revenues on average.

- Inheritance can be a powerful accelerator of unearned inequality and a destructor of meritocratic values. Rich countries understood this.

- Proposals to explore (Atkinson, 2015):
1. Received gifts/inheritances included in personal income tax (averaged receipts)
2. Receipts of gift/inheritances should be taxed under a progressive lifetime capital receipts tax.
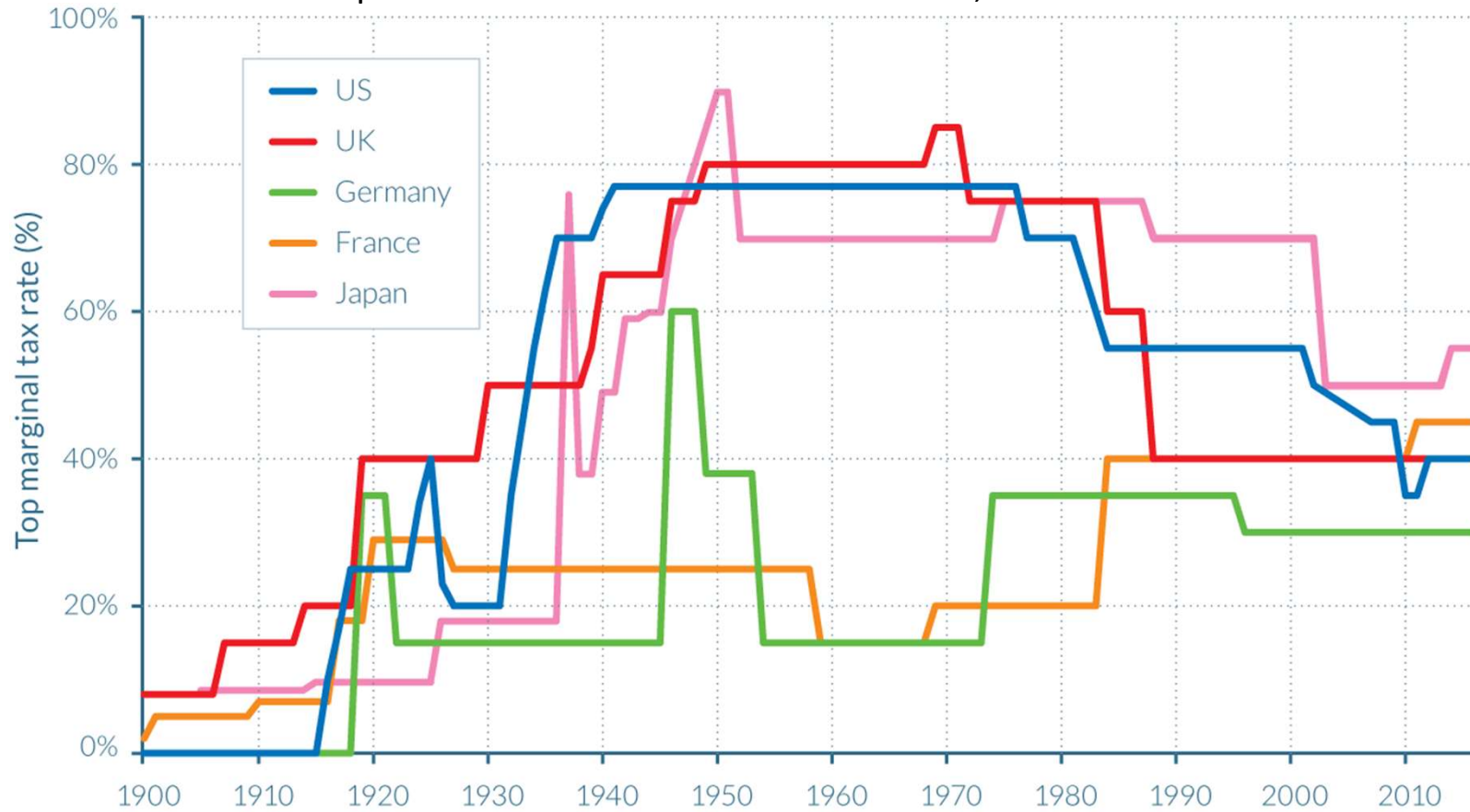
Top inheritance tax rates in emerging and rich countries, 2017
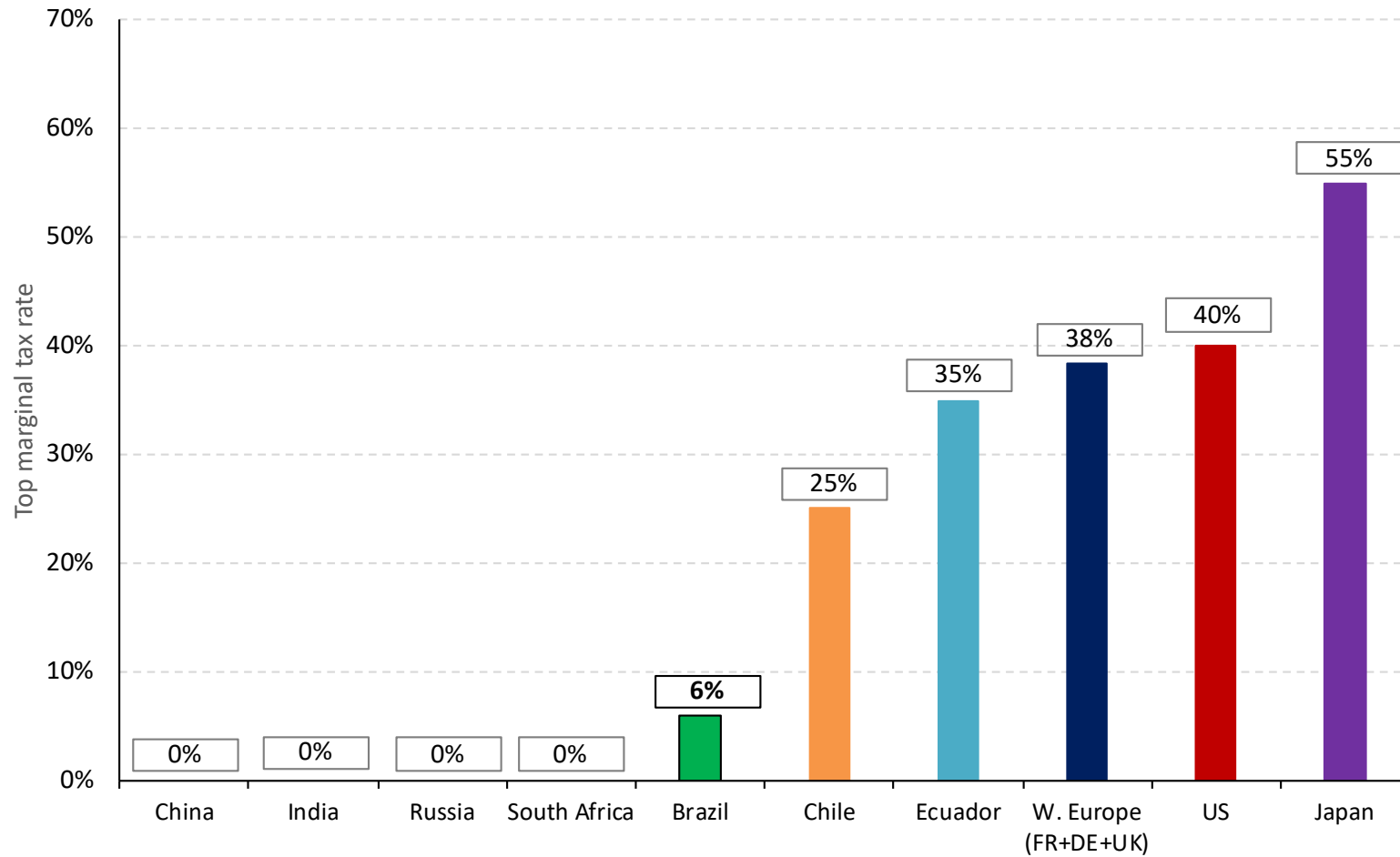
Sources: WID.world (2017). Western Europe is represented by the average top rate observed in France, Germany and UK, The rate in Brazil represents the average of the top rates across all states.

Top inheritance tax rates in rich countries, 1900–2017
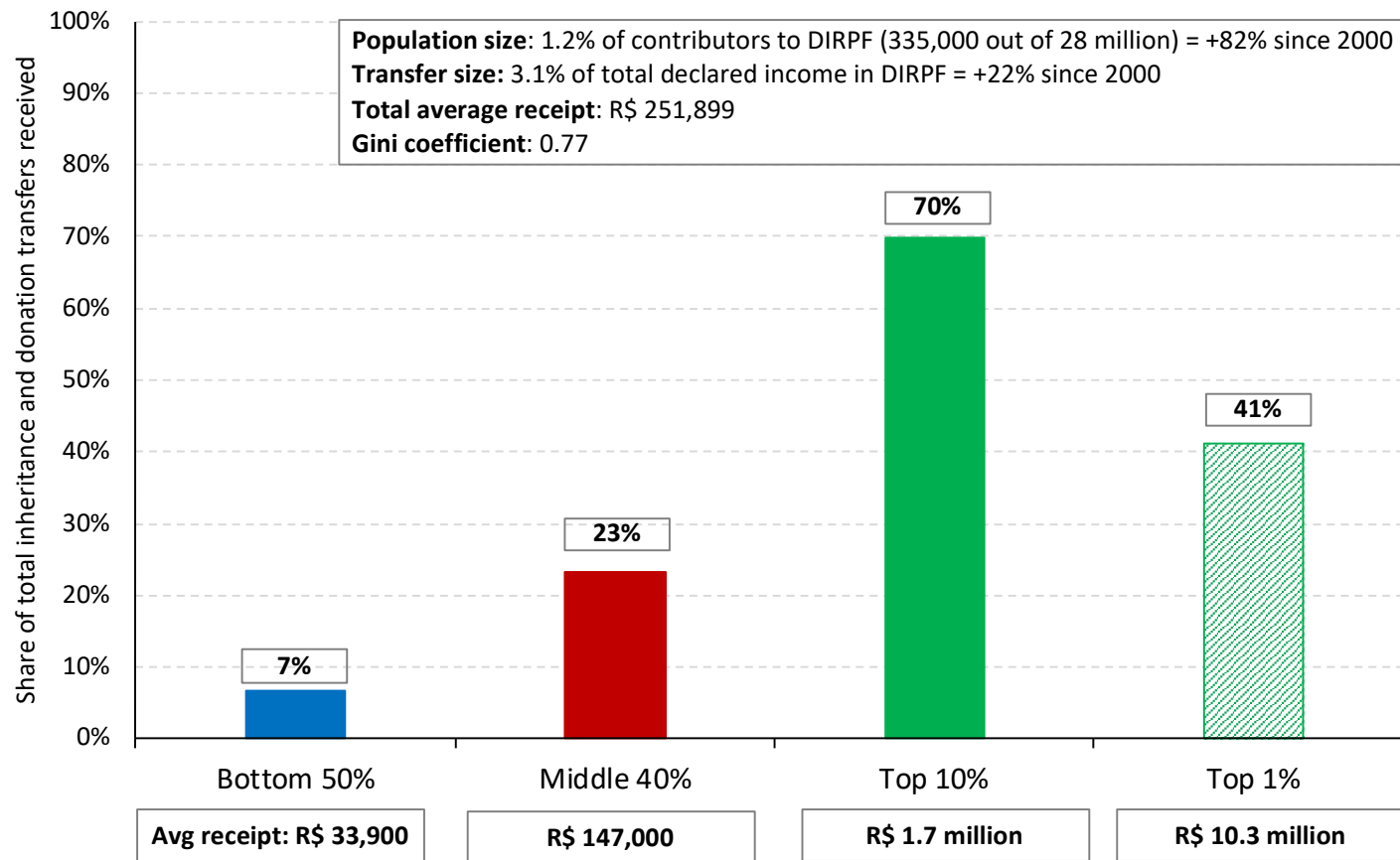

Source: Piketty (2014) and updates. See wir2018.wid.world/methodology.html for data series and notes.

Between 1980 and 2017, the top marginal tax rate of inheritance tax (applying to the highest inheritances) in the UK fell from 75% to 40%.

Inequality of inheritance in Brazil

Distribution of inheritance and donations in Brazil in 2016

Population size: 1.2% of contributors to DIRPF (335,000 out of 28 million) = +82% since 2000
Transfer size: 3.1% of total declared income in DIRPF = +22% since 2000
Total average receipt: R$ 251,899
Gini coefficient: 0.77

Share of total inheritance and donation transfers received (y-axis, 0%–100%)

Bottom 50%	Middle 40%	Top 10%	Top 1%
7%	23%	70%	41%
Avg receipt: R$ 33,900	R$ 147,000	R$ 1.7 million	R$ 10.3 million

Notes: Distribution of inheritance receipts & donations reported by individuals in personal income tax declarations (DIRPF). Authors' computations using data on doações e heranças from the *Receita Federal do Brasil* (Grandes Números IRPF Ano Calendário 2016).

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Final remarks

- Kaldor:"The problem which has yet to be solved is how to bring about that change in the balance of power which is needed to avert revolutions with *having* a revolution?"

- Is progressive taxation only applicable when a country has reached an advanced level of industrial development? (Kaldor, 1963)
  - Depends on balance of political power and admin capacity (= political choice)

- Is there something distinct about Latin American 'capitalists' & the development process?
  - Fortunes made by expansion of industries and services catering for upper income groups
  - Can ruling class not be made to "acquire an instinctive appreciation of its long-run interests"?

- Progressive tax = a social-democratic tool to reduce inequality. *"Political democracies that do not democratize their economic systems are inherently unstable"* → plutocracies (Wedgewood, Russell…& other social thinkers of early/mid 20th century)

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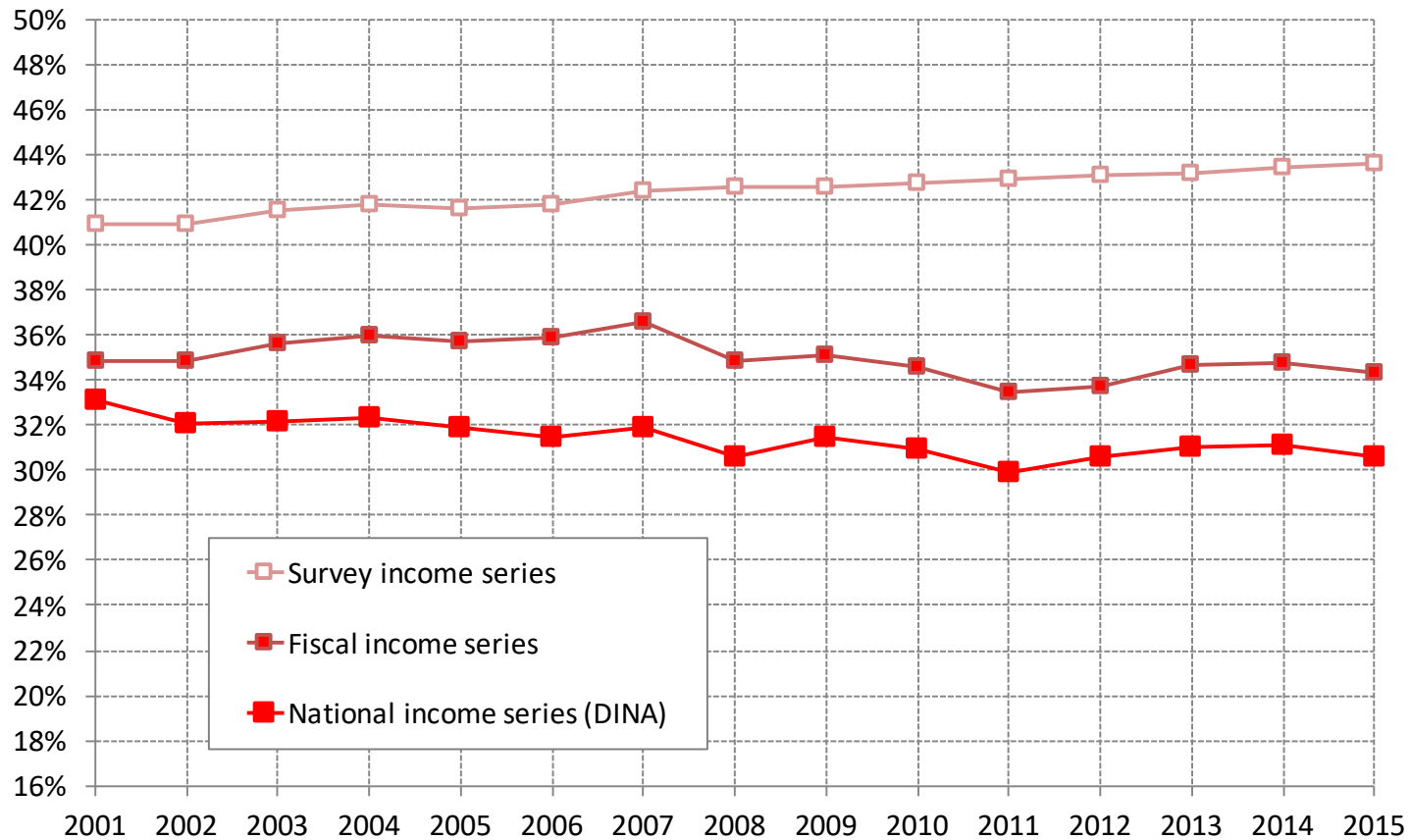
Additional slides

Figure 6. Top 10% in Brazil: survey vs fiscal vs DINA series
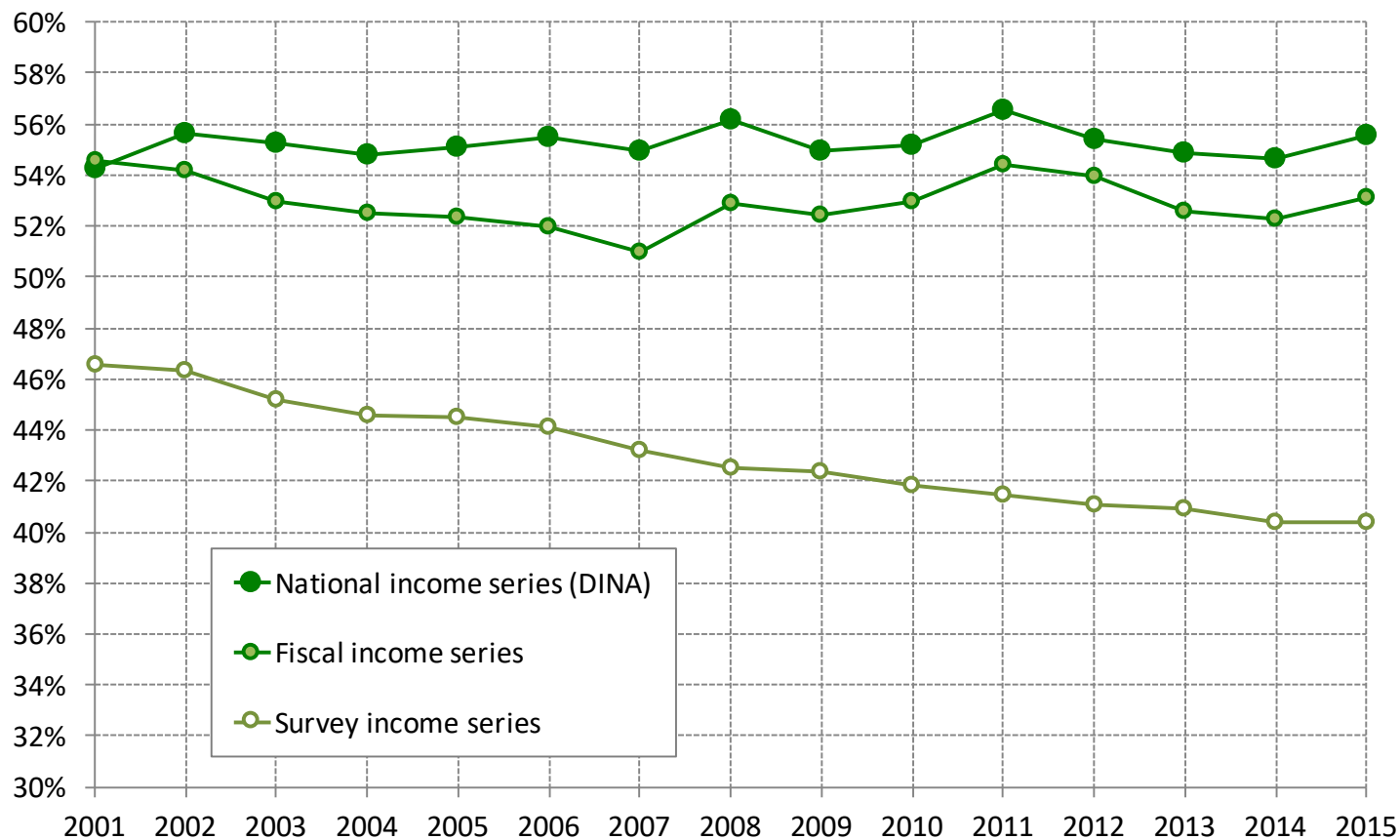
Notes: Distribution of income (before taxes and transfers, except pensions and unemployment insurance) among adults in our three series, raw estimates from surveys, a fiscal income series (combining surveys and fiscal data) and a national income series (combining national accounts, surveys and fiscal data). Equal-split-adults series (income of married couples divided by two). Morgan (2017)
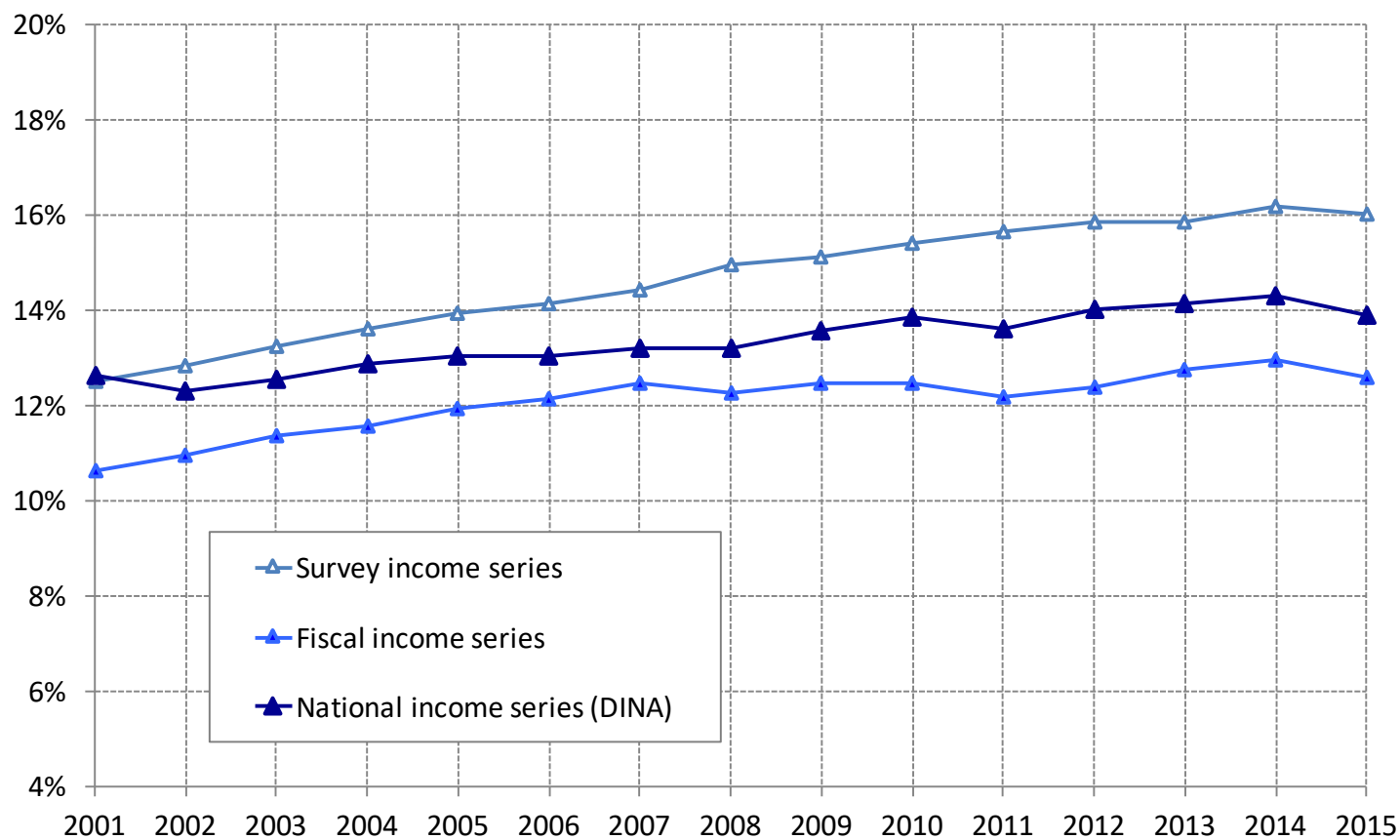
Figure 7. Middle 40% in Brazil: survey vs fiscal vs DINA series

Notes: Distribution of income (before taxes and transfers, except pensions and unemployment insurance) among adults in our three series, raw estimates from surveys, a fiscal income series (combining surveys and fiscal data) and a national income series (combining national accounts, surveys and fiscal data). Equal-split-adults series (income of married couples divided by two). Morgan (2017)
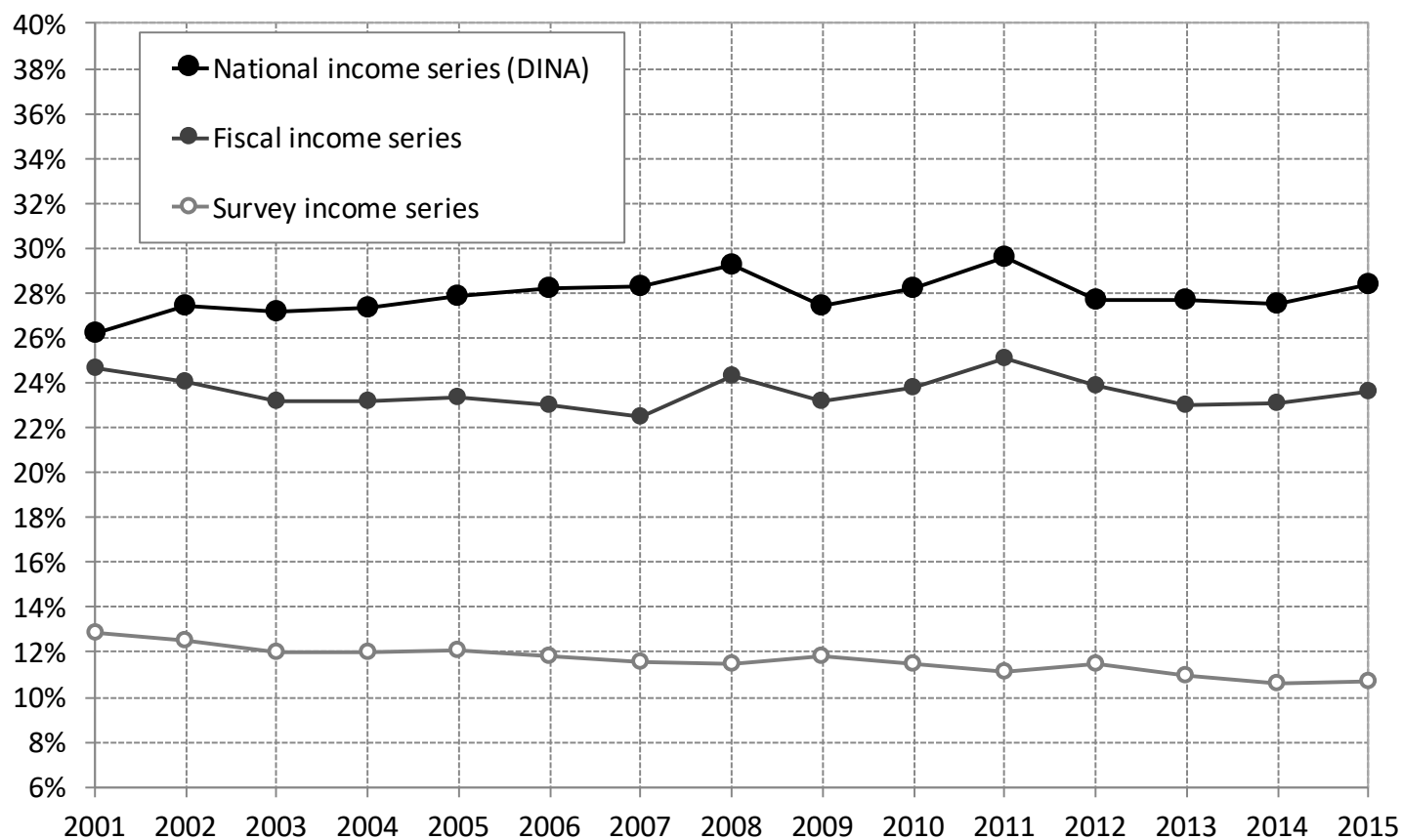
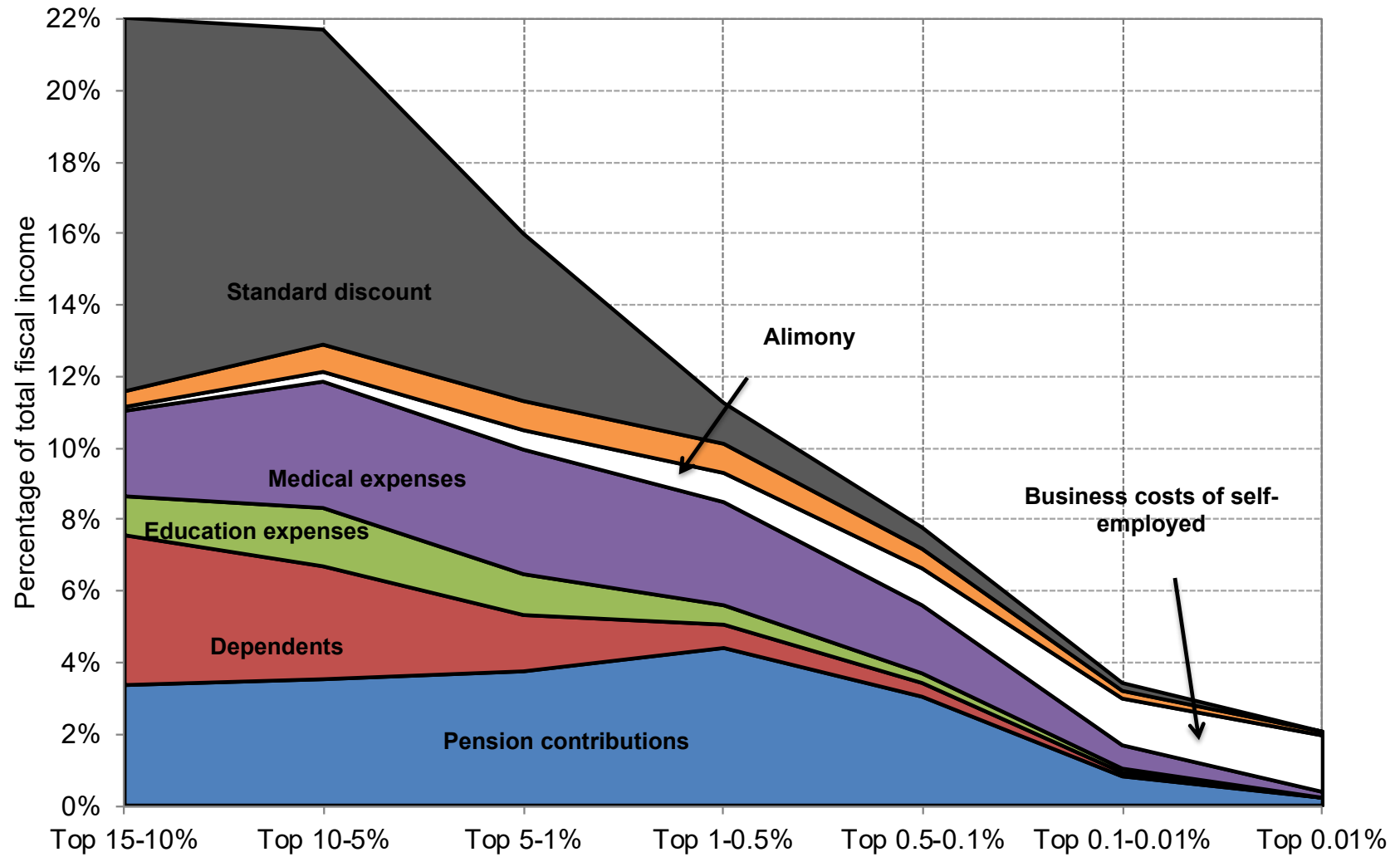# Figure 8. Bottom 50% in Brazil: survey vs fiscal vs DINA series

Notes: Distribution of income (before taxes and transfers, except pensions and unemployment insurance) among adults in our three series, raw estimates from surveys, a fiscal income series (combining surveys and fiscal data) and a national income series (combining national accounts, surveys and fiscal data). Equal-split-adults series (income of married couples divided by two). Morgan (2017)

Figure 9. Top 1% in Brazil: survey vs fiscal vs DINA series

Notes: Distribution of income (before taxes and transfers, except pensions and unemployment. insurance) among adults in our three series, raw estimates from surveys, a fiscal income series (combining surveys and fiscal data) and a national income series (combining national accounts, surveys and fiscal data). Equal-split-adults series (income of married couples divided by two). Morgan (2017)
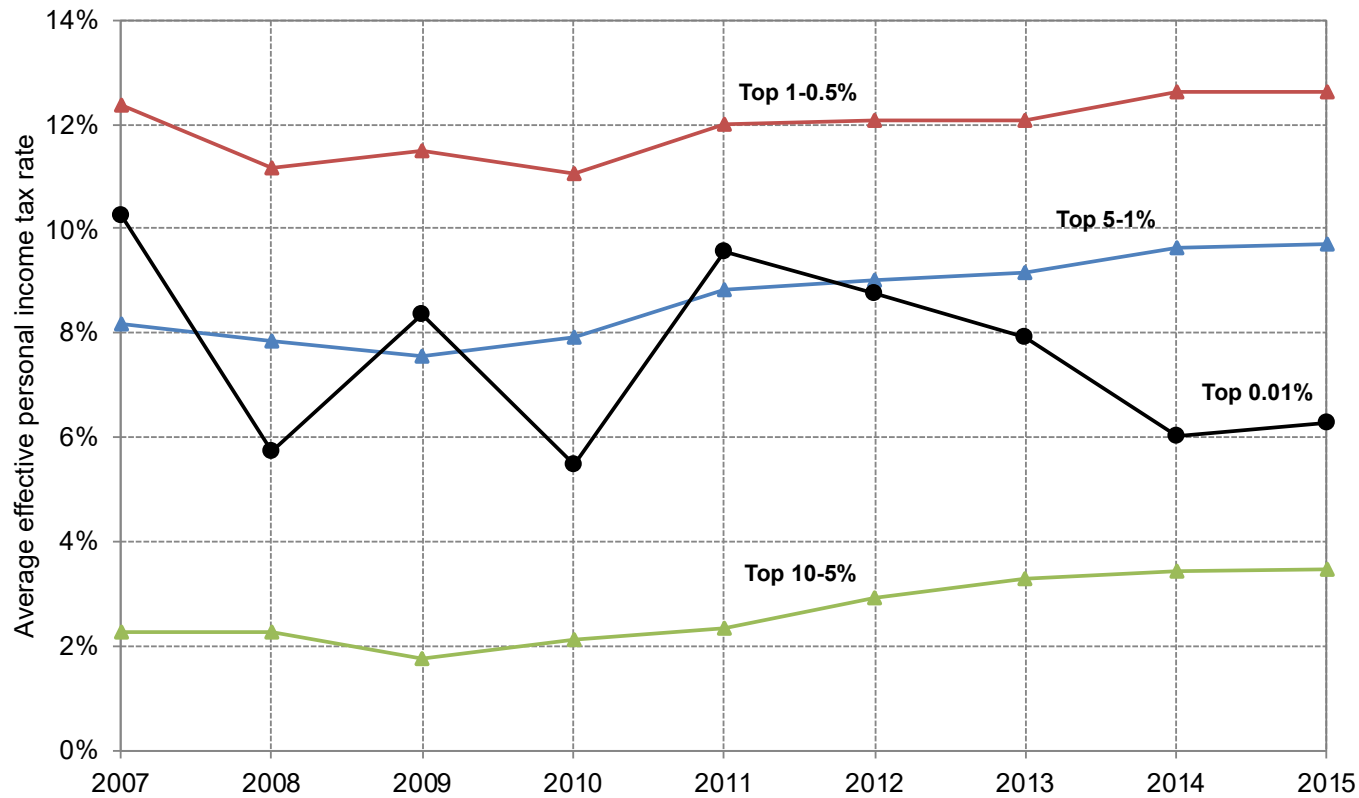
Composition of deductions among top groups in Brazil in 2015

Percentage of total fiscal income (y-axis)

Standard discount

Alimony

Business costs of self-employed

Medical expenses

Education expenses

Dependents

Pension contributions

x-axis: Top 15-10% | Top 10-5% | Top 5-1% | Top 1-0.5% | Top 0.5-0.1% | Top 0.1-0.01% | Top 0.01%

How progressive is the IRPF in Brazil?

Average effective income tax rates for top groups in Brazil
2007-2015

Sources: authors' calculations based on income tax data from the *Receita Federal*. Morgan (2018a).