The Growth Comeback in Developing Economies: A New Hope or Back to the Future?

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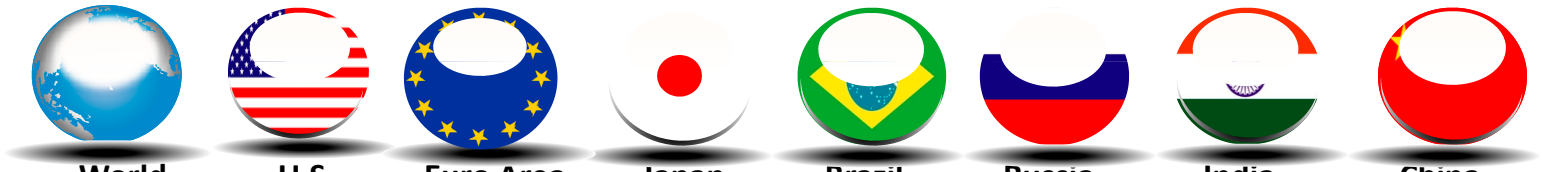
Global growth prospects have remained modest since the recovery from the Great Recession…

IMF's WEO Real GDP Growth Projections

(percent change from a year earlier)



	World	U.S.	Euro Area	Japan	Brazil	Russia	India	China
2013 (Oct. 2013)	2.9	1.6	-0.4	2.0	2.5	1.5	3.8	7.6
2013 (Jul. 2013)	3.1	1.7	-0.6	2.0	2.5	2.5	5.6	7.8
2014 (Oct. 2013)	3.6	2.6	1.0	1.2	2.5	3.0	5.1	7.3
2014 (Jul. 2013)	3.8	2.7	0.9	1.2	3.2	3.3	6.3	7.7
2005-07	5.1	2.6	2.7	1.7	4.4	7.7	9.5	12.7
1995-04	3.6	3.4	2.2	1.1	2.5	2.9	6.2	9.2

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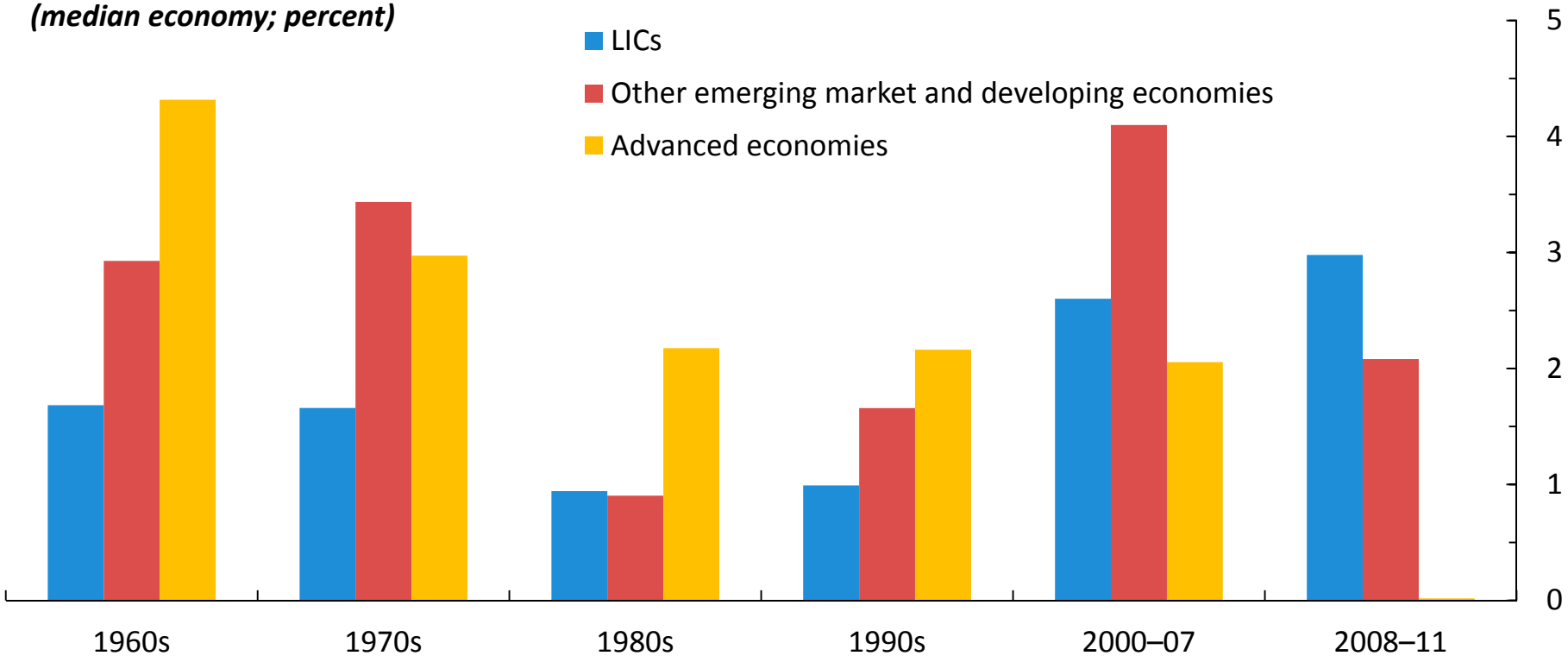
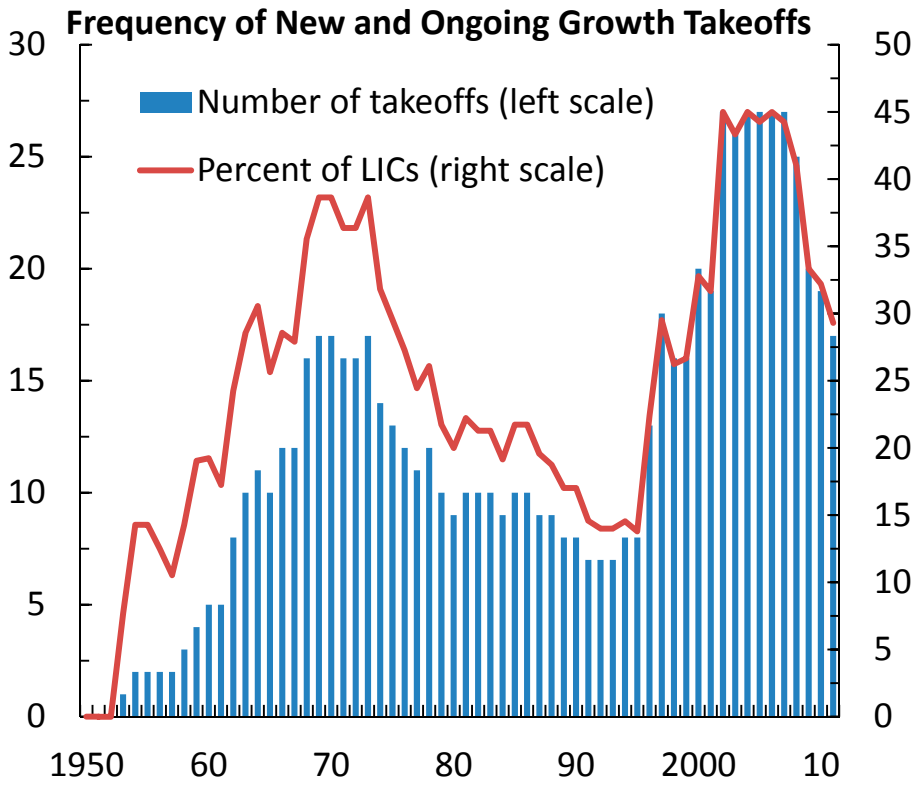
…however, low-income countries (LICs) have made a comeback. We have been here before…can this time be different?

Real Growth in GDP per Capita
(median economy; percent)



Note: Real GDP per capita is in purchasing-power-parity terms. The 2008–11 median of real GDP per capita growth of advanced economies is near zero (0.02 percentage point).

Many more LICs are embarking on and sustaining takeoffs over the past two decades than before,

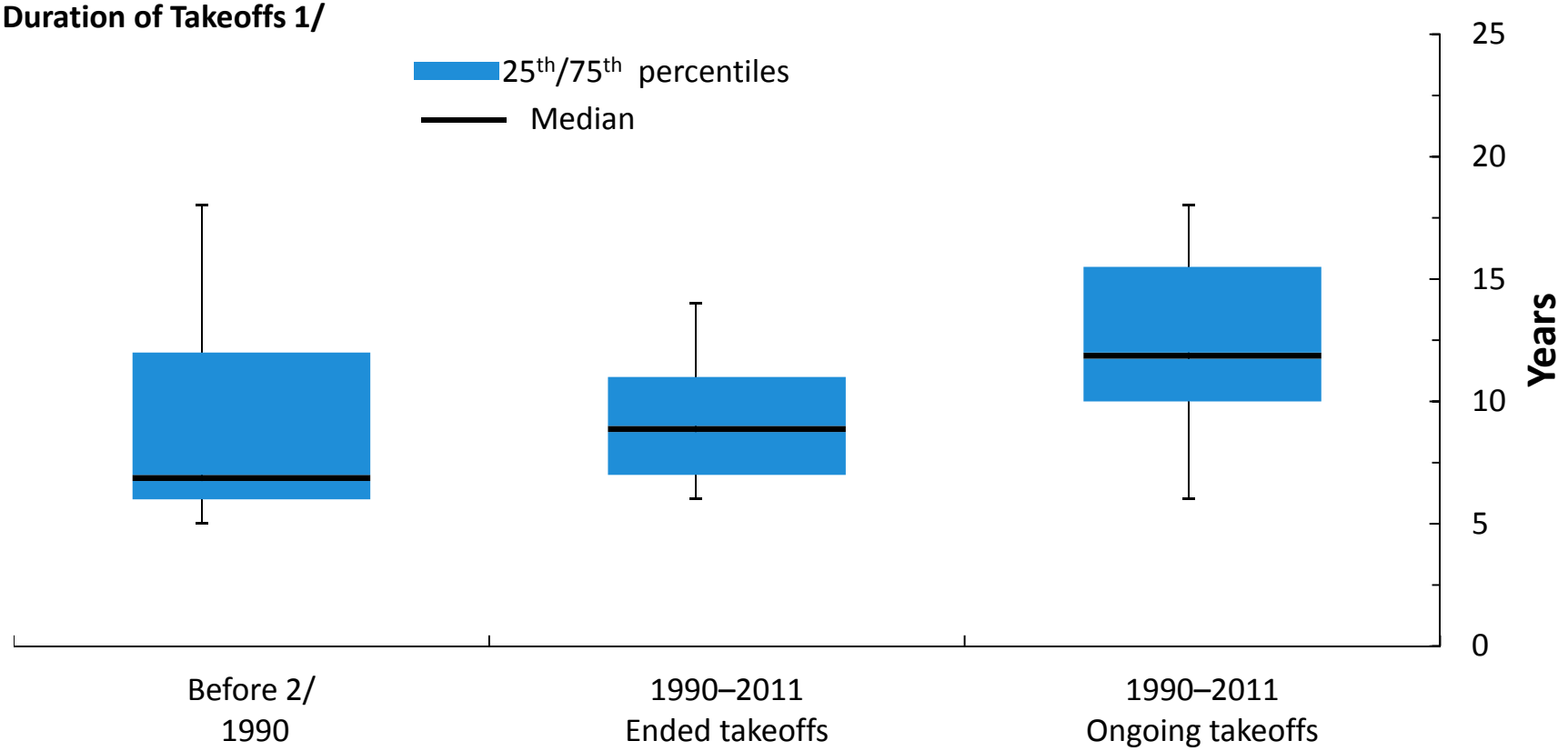


- A **takeoff** is defined to be a period of positive growth (an expansion) lasting at least 5 years, with growth averaging at least 3.5% per year.

- An **LIC** is defined to be a non-advanced economy with average real income per capita below a time-varying income threshold.
  - Threshold is set at 45th percentile of non-AE income per capita in 1990, extended forwards and backwards at global growth rate (about 2.3% per year).

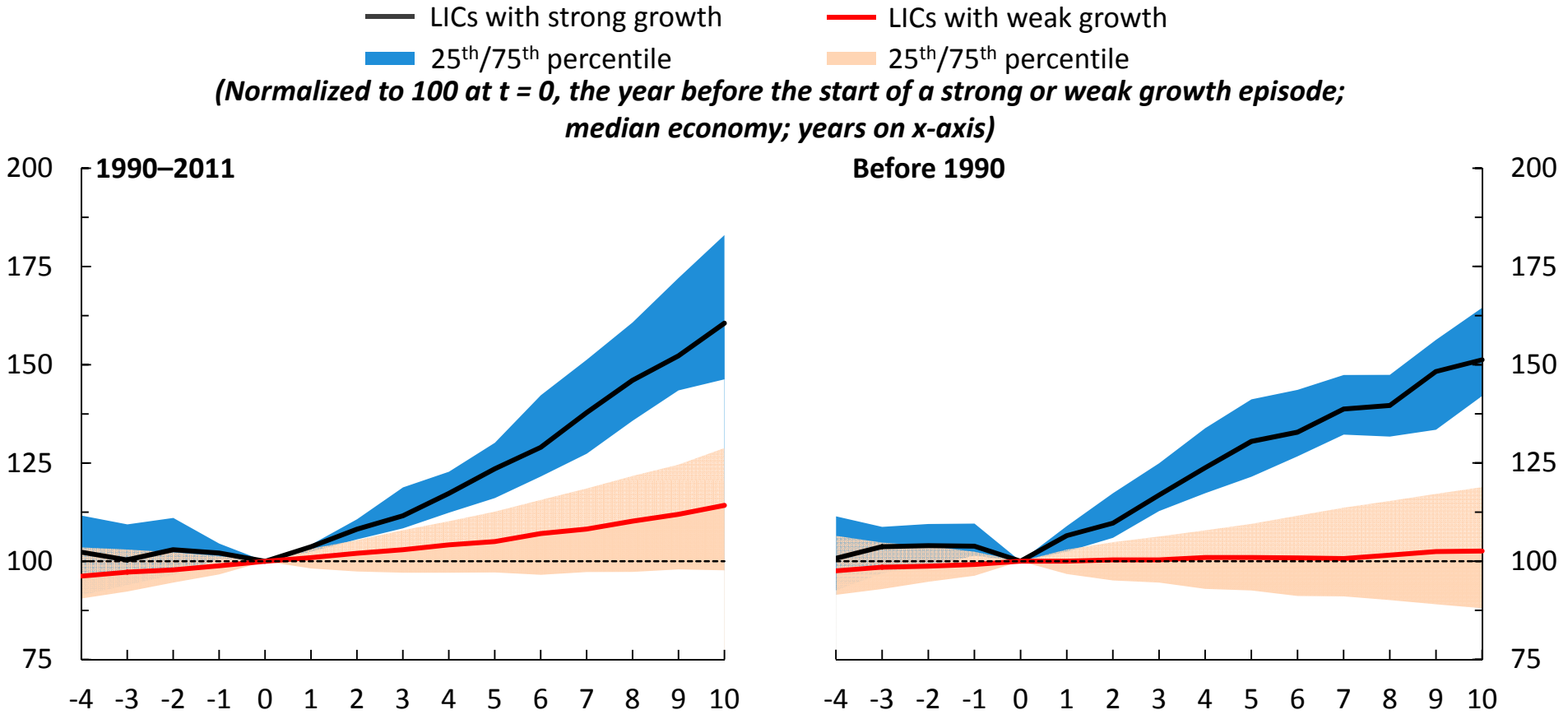
and these takeoffs are lasting longer

Duration of Takeoffs 1/



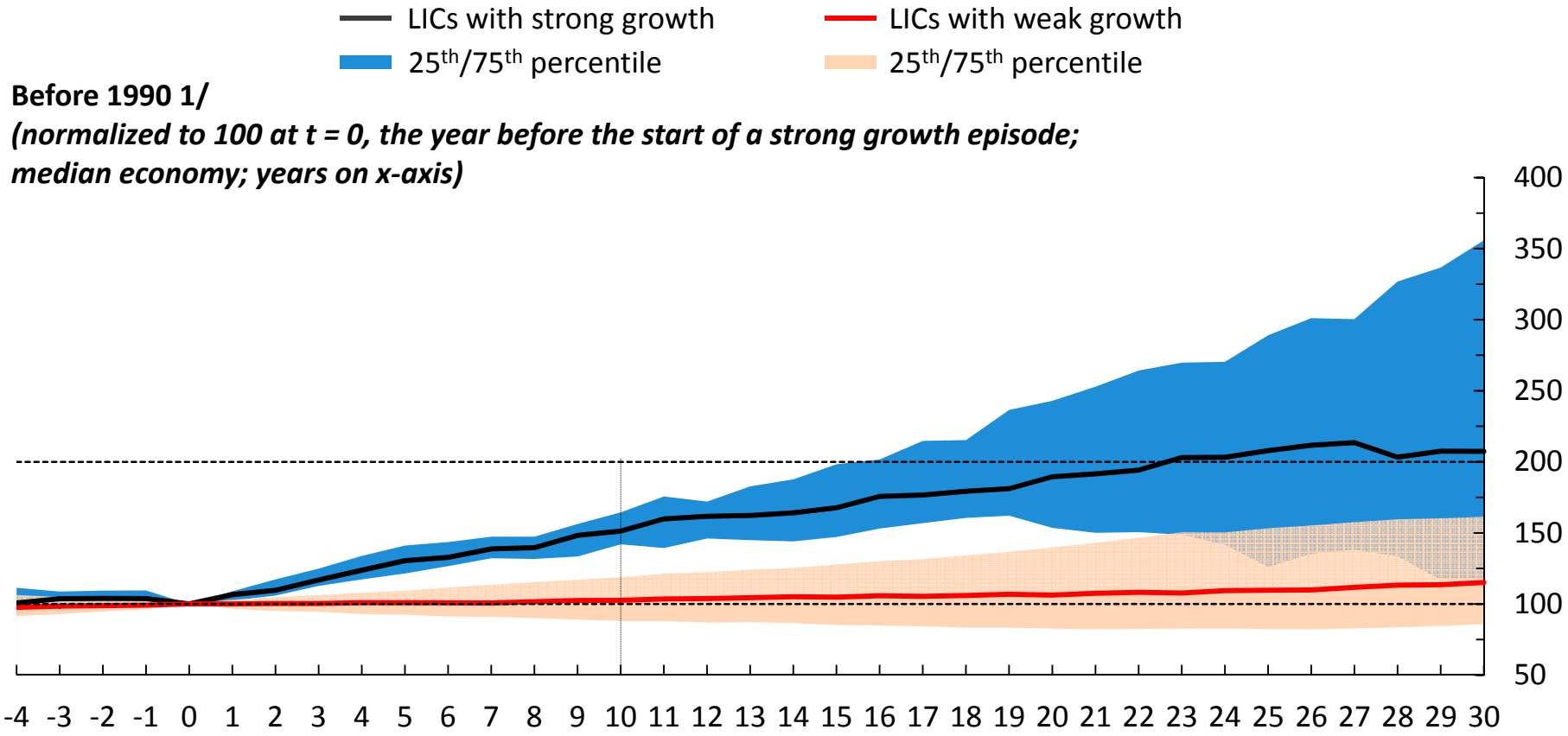
1/ The horizontal line inside each box is the median within the group; the upper and lower edges of each box show the top and bottom quartiles. The distance between the black lines (adjacent values) above and below the box indicates the range of the distribution within that generation, excluding outliers.
2/ The episodes before 1990 include one ongoing takeoff (Vietnam since 1981).

Takeoffs lead to important gains in output per capita



Note: LICs exclude countries experiencing or recovering from a serious external or internal conflict at the start of their takeoffs.

However, some previous generation dynamic LICs suffered slowdowns and even reversals in per capita income growth



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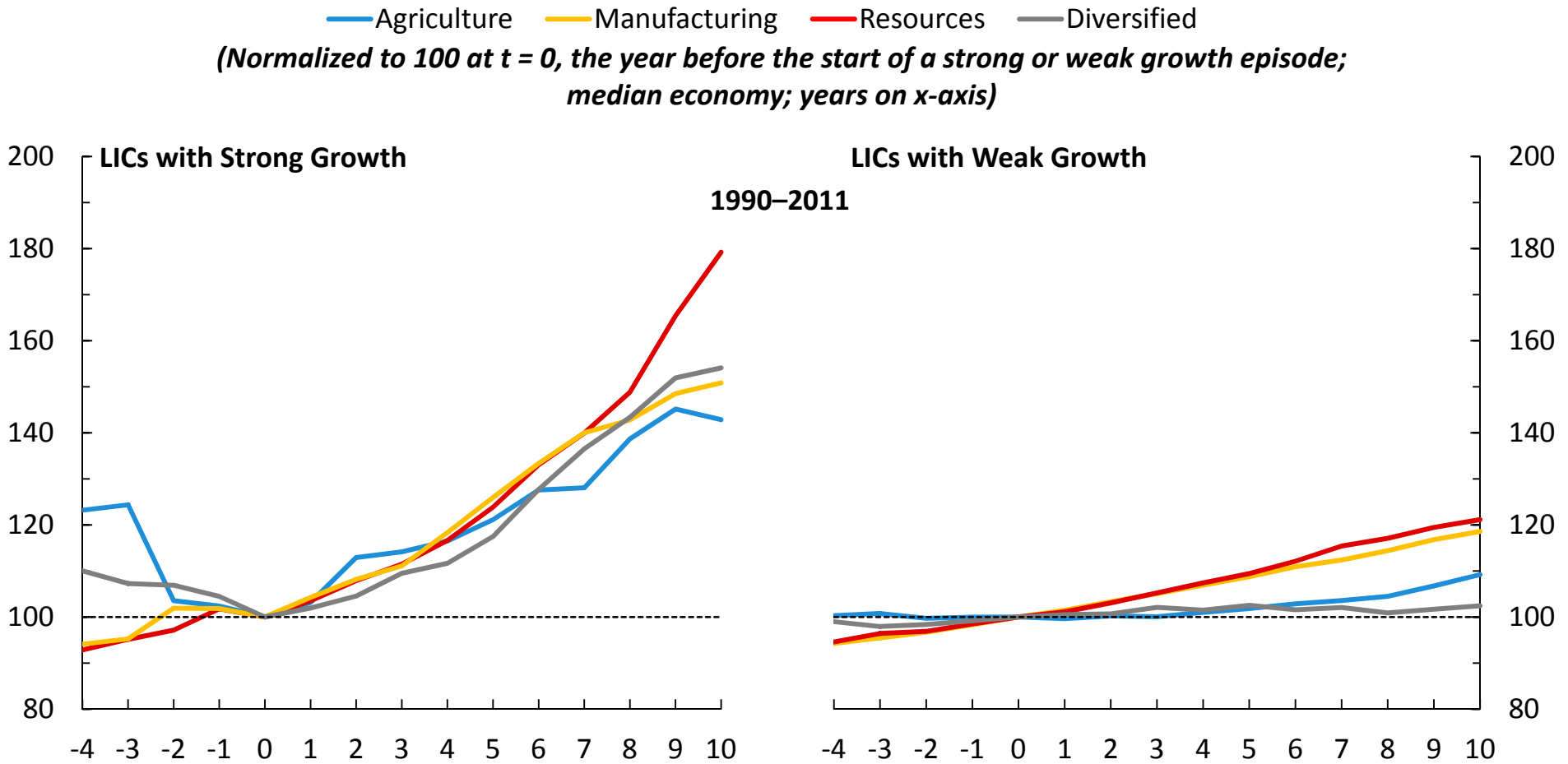
1/ The vertical line indicates the 10-year horizon.

Economic structure did not matter much for LIC takeoffs in current generation…



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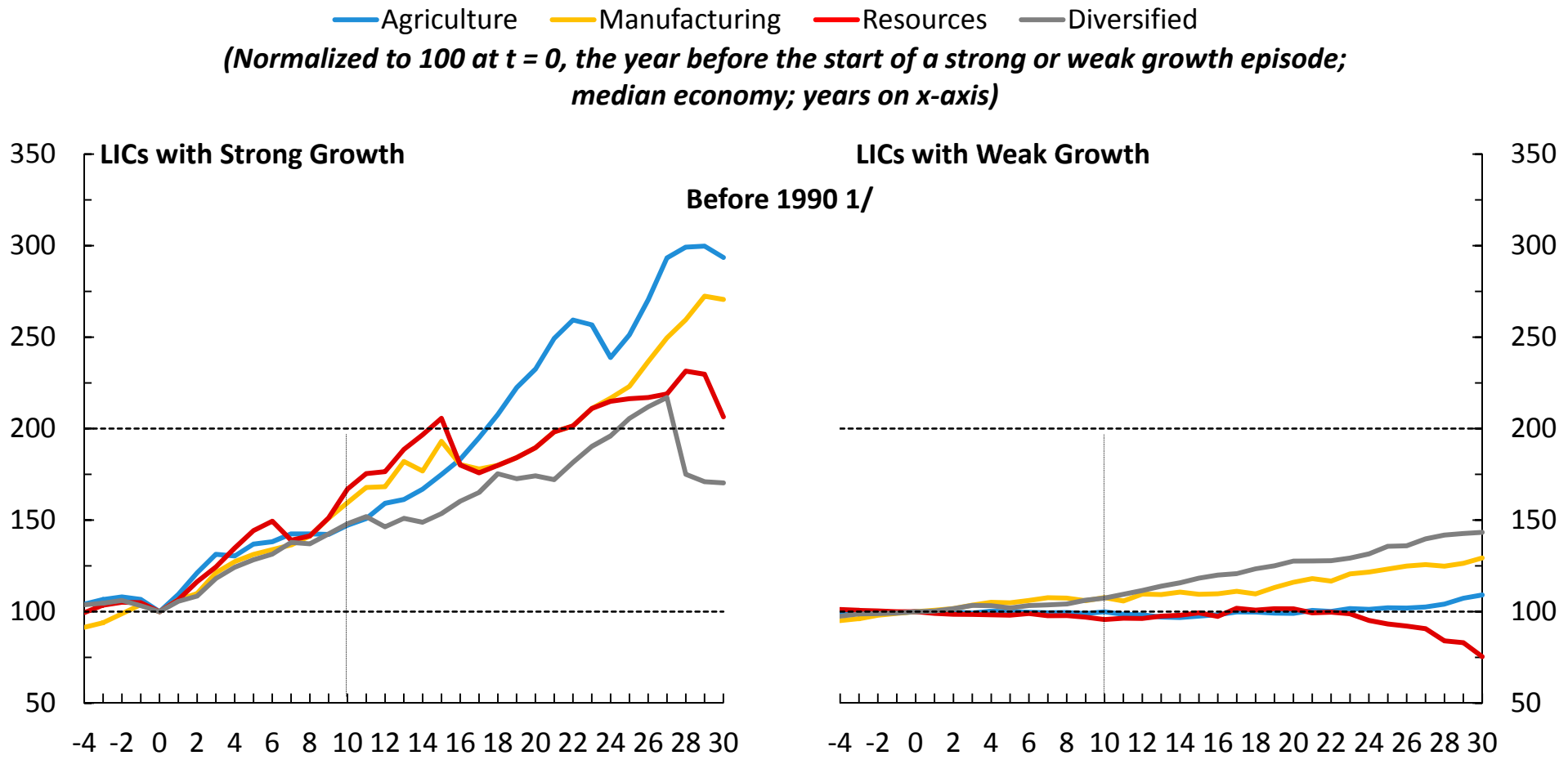
nor for the earlier generation.



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What is associated with takeoffs?

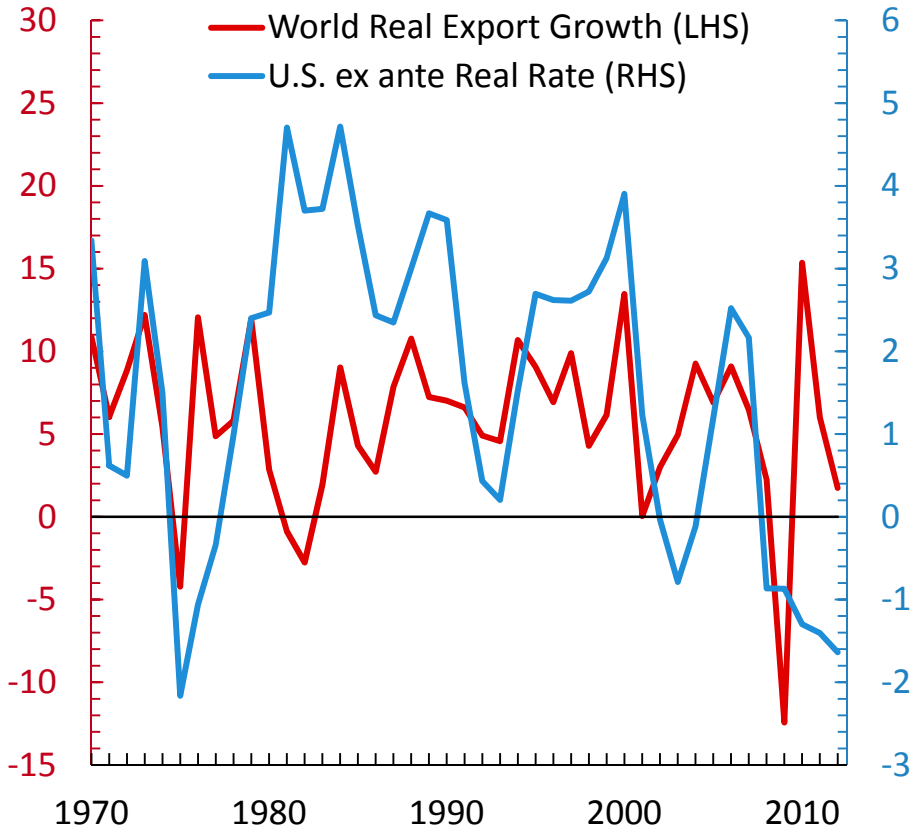
- Looking across generations, is the latest uptick in LIC takeoffs simply a sign of a more favorable global environment?

- What has been the role of improvements on the domestic front?

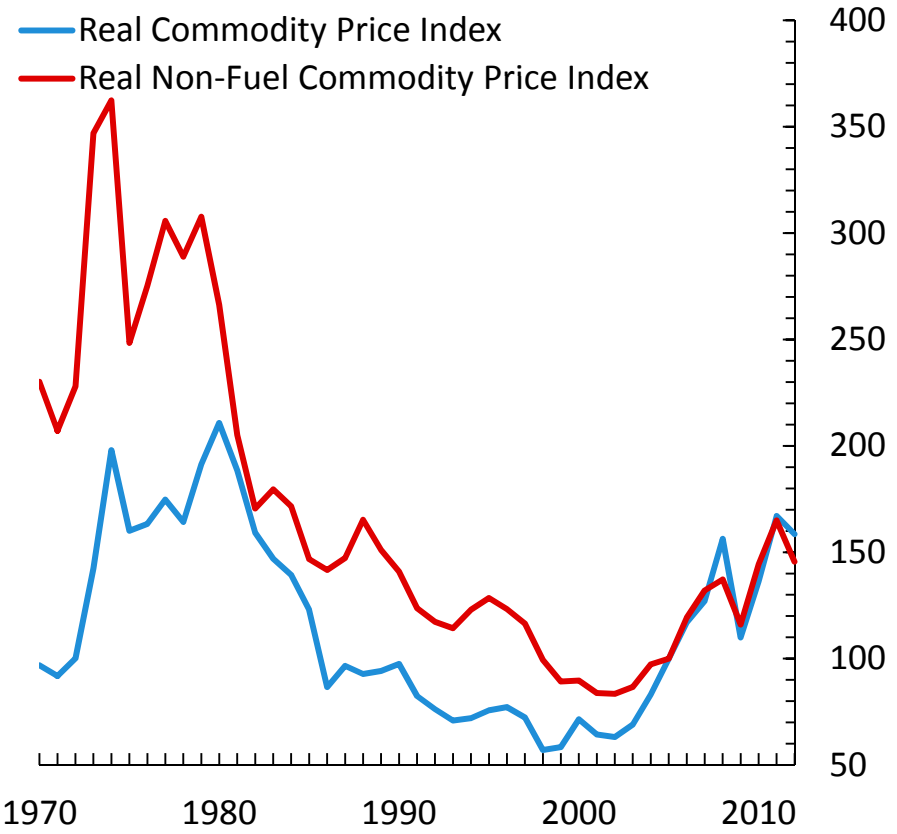
- Consider these indicators next, first one-by-one and then jointly.

Global environment more supportive after 1990, lower U.S. real rates and rising commodity prices.

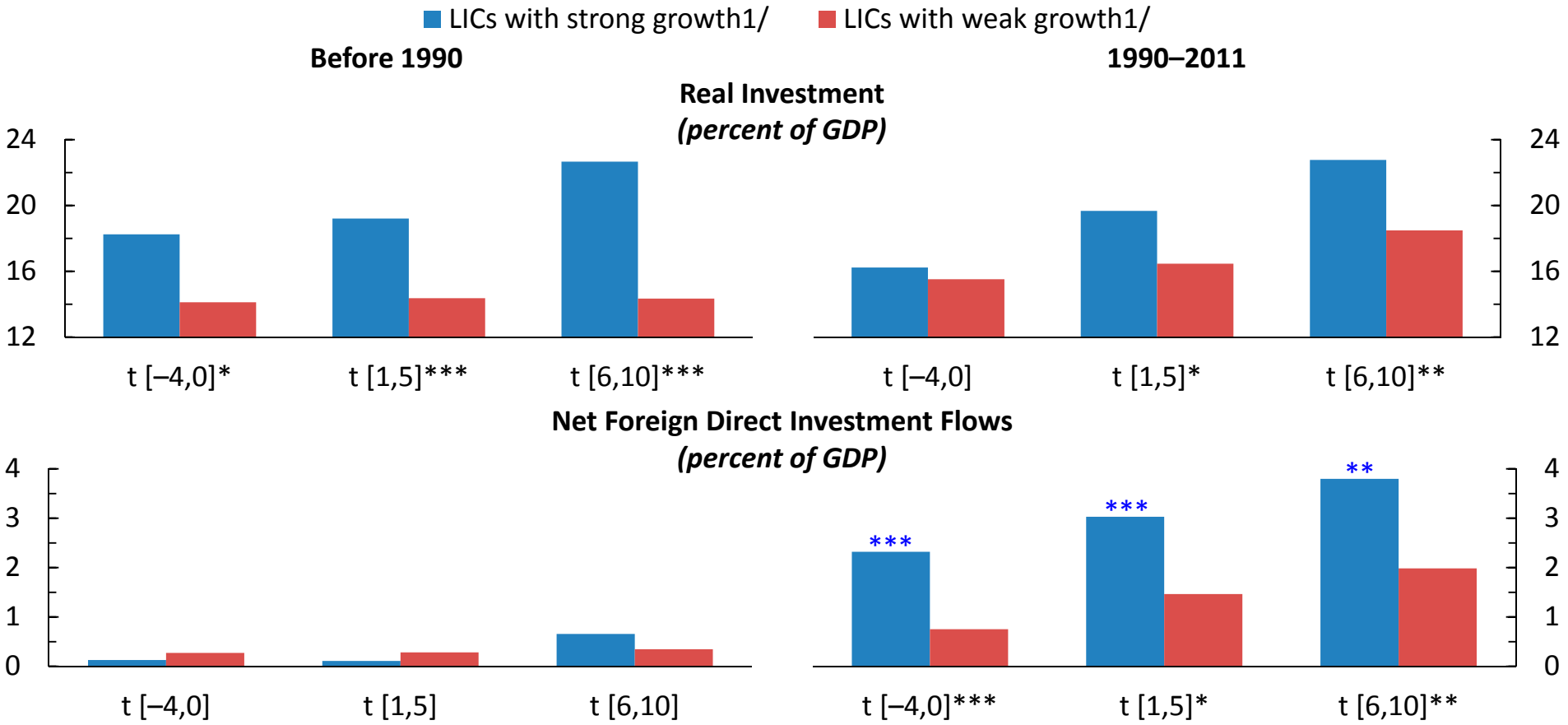
U.S. Real Interest Rate and Global Exports (percent)



Real Commodity Prices (2005 = 100)

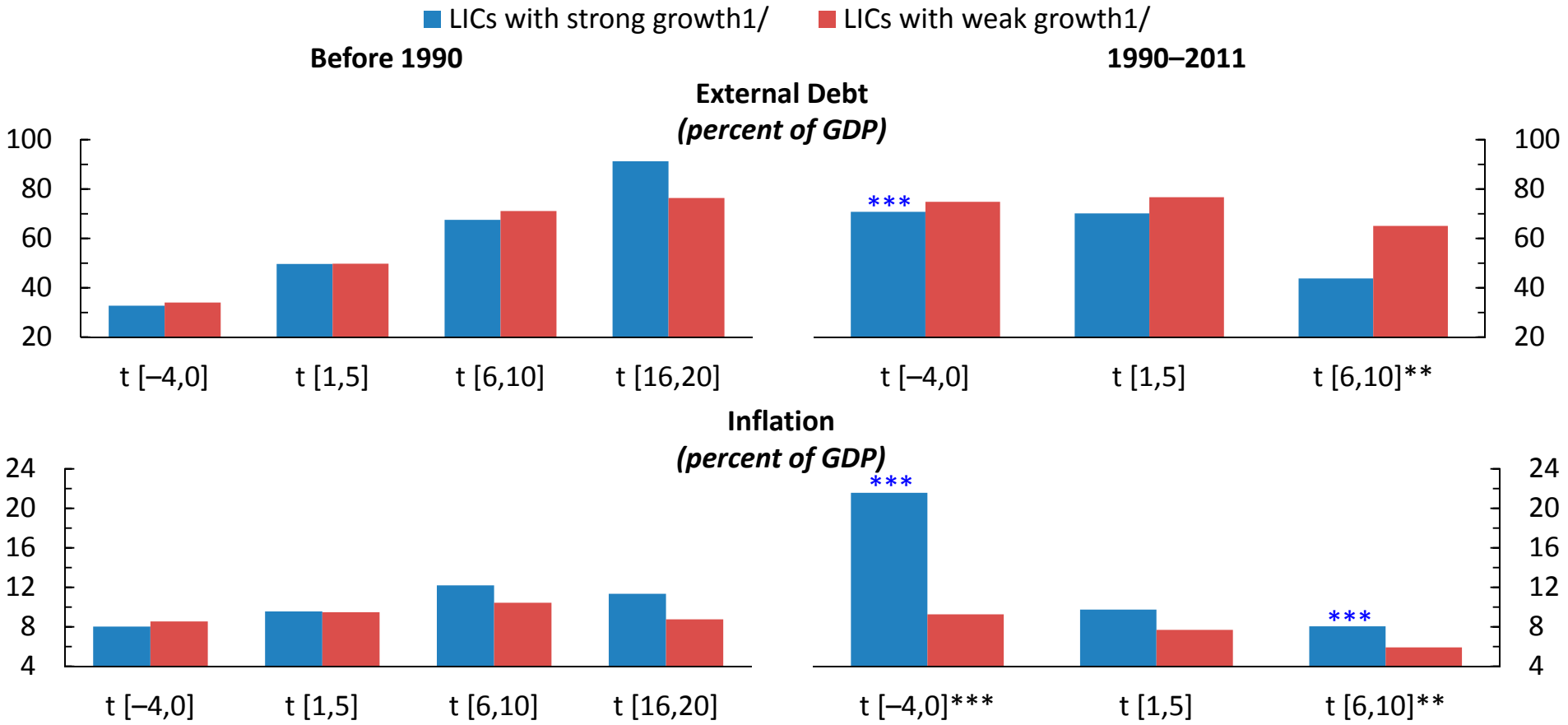


Both generations of takeoffs saw sharply higher investment rates. But more reliance on FDI for the current generation…



Note: *,**, and *** denote significant difference in distributions (based on the Kolmogorov-Smirnov test) at the 10%, 5%, and 1% levels, respectively. Significance tests on the x-axis are for the difference in the distributions between the groups of strong and weak growth. Significance tests on the blue bars are for the difference in the distributions across 1990–2011 and before 1990 (not shown for red bars). A constant composition sample underlies each of the panels to ensure comparability within the group of strong and weak growth episodes across time for that panel.
1/ Excludes LICs experiencing or recovering from a serious external or internal conflict at the start of their takeoffs.

…in part suggesting why they saw post takeoff debt and inflation levels fall, in contrast to previous generation



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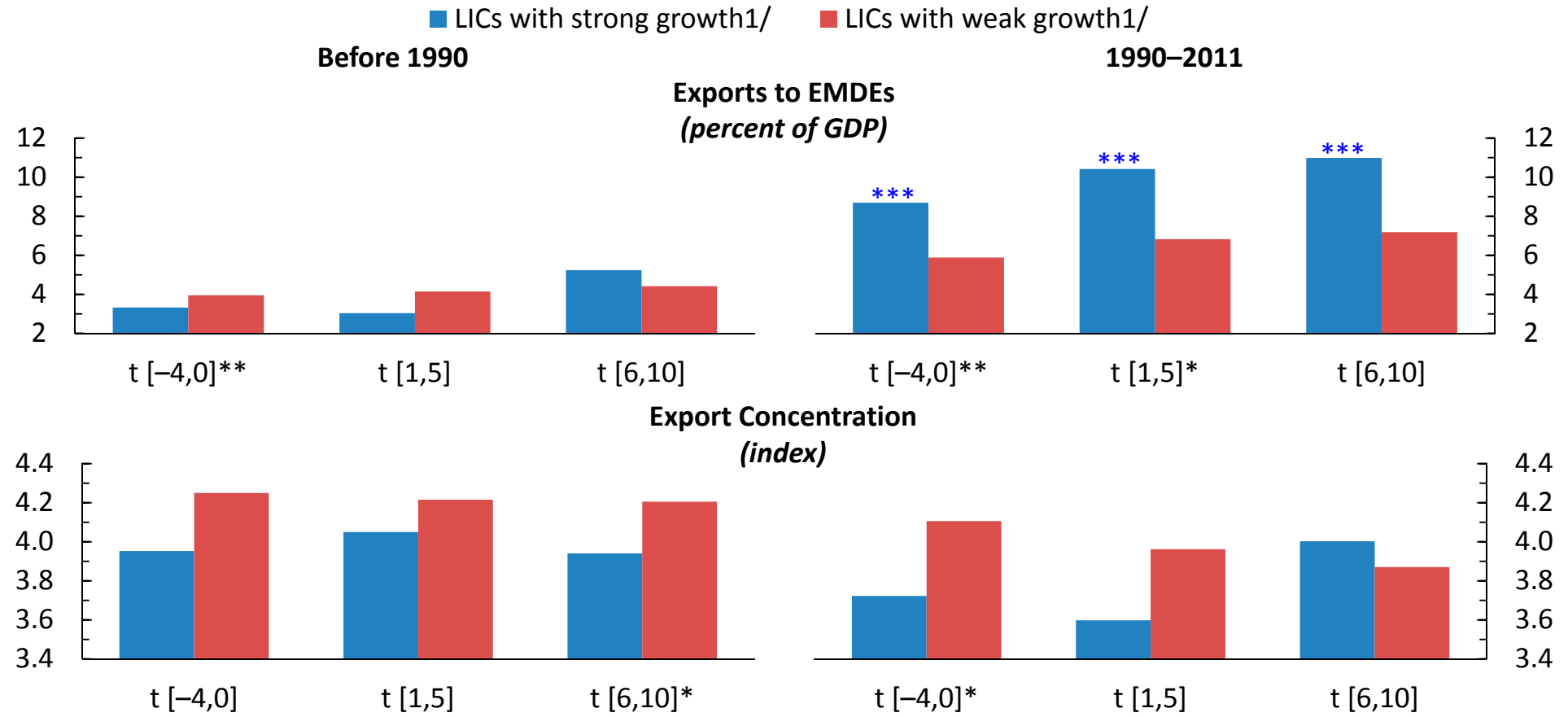
The current generation has more diversified exports…



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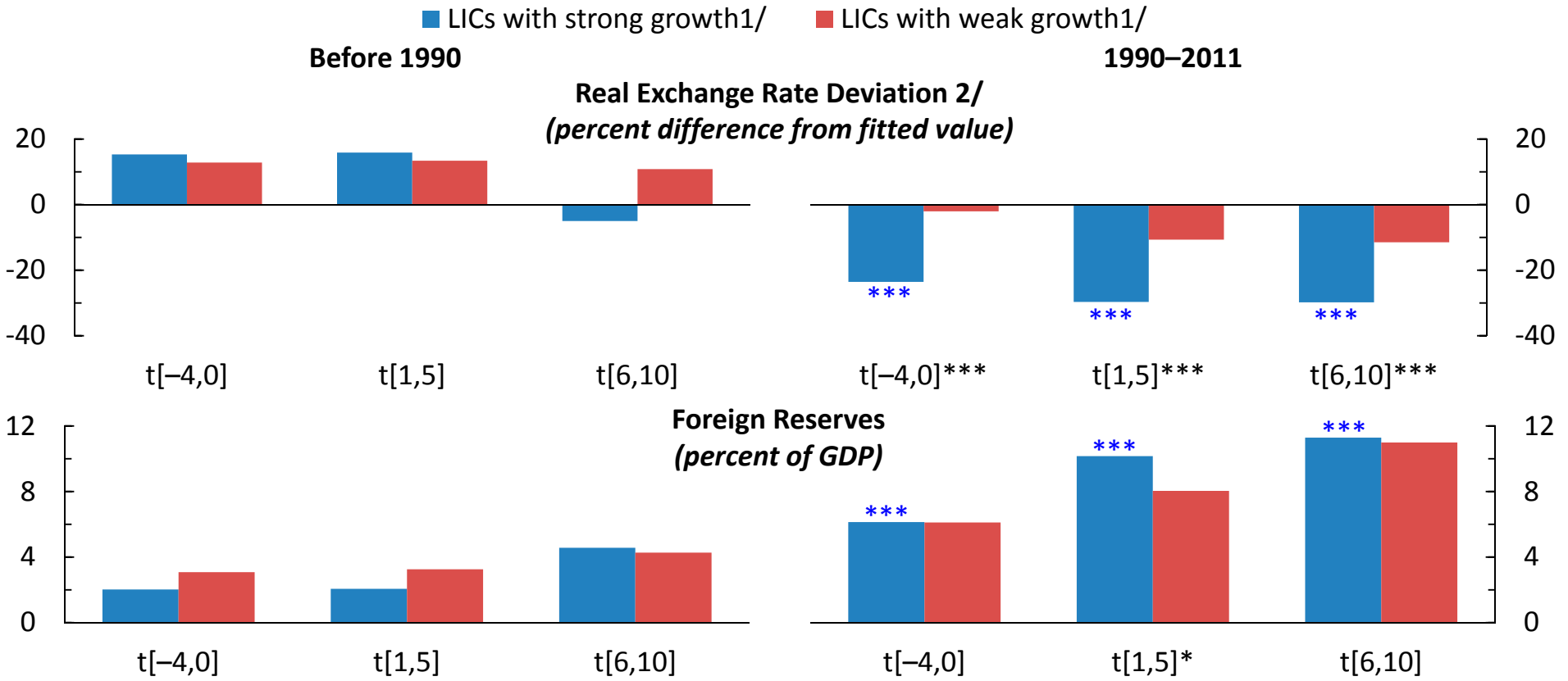
…and more competitive exchange rates in part because of a greater accumulation of foreign reserves…



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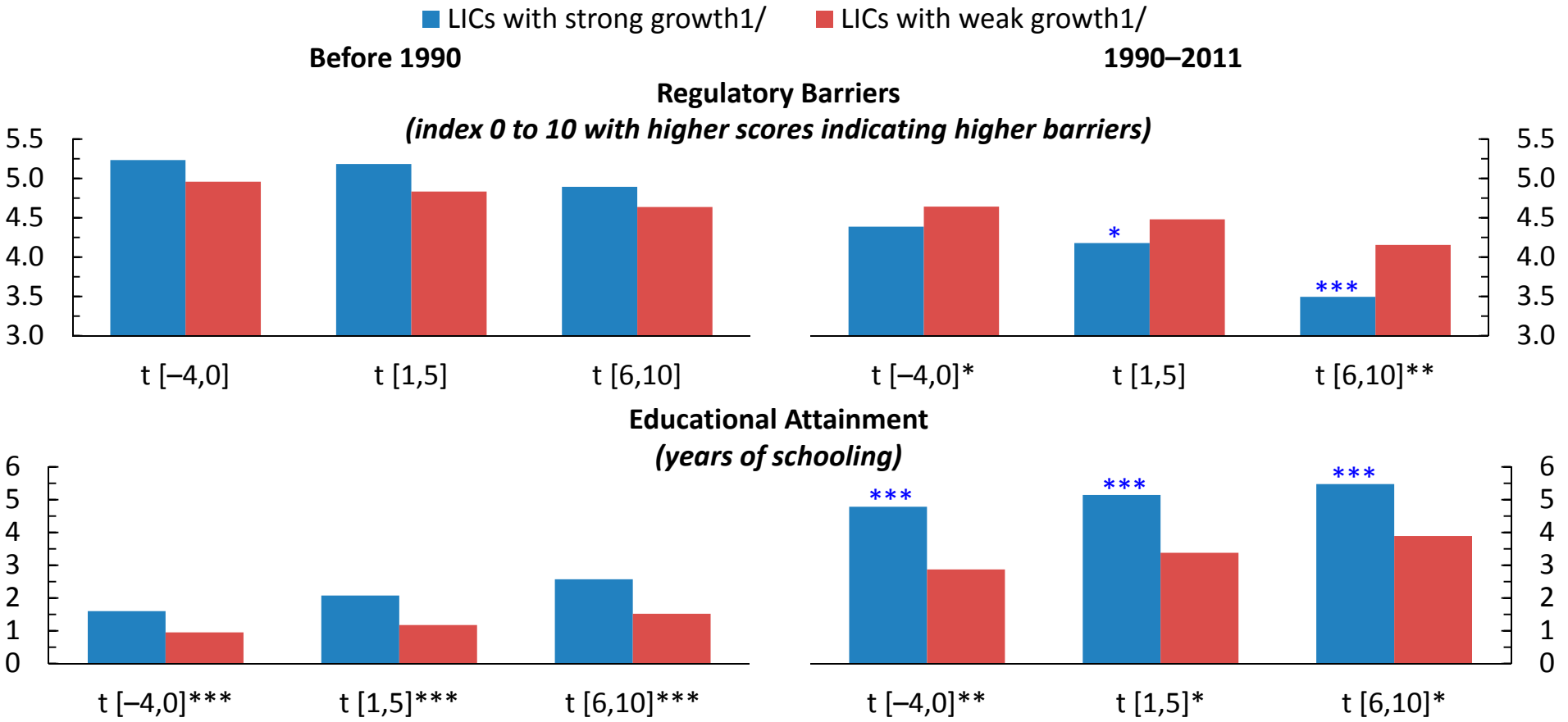
1/ Excludes LICs experiencing or recovering from a serious external or internal conflict at the start of their takeoffs.
2/ The real exchange rate deviation is the residual from a linear regression of the log real exchange rate versus the United States on the productivity differential of a country and the United States, as proxied by the income per capita differential.

…and a faster pace of implementation of structural reforms…



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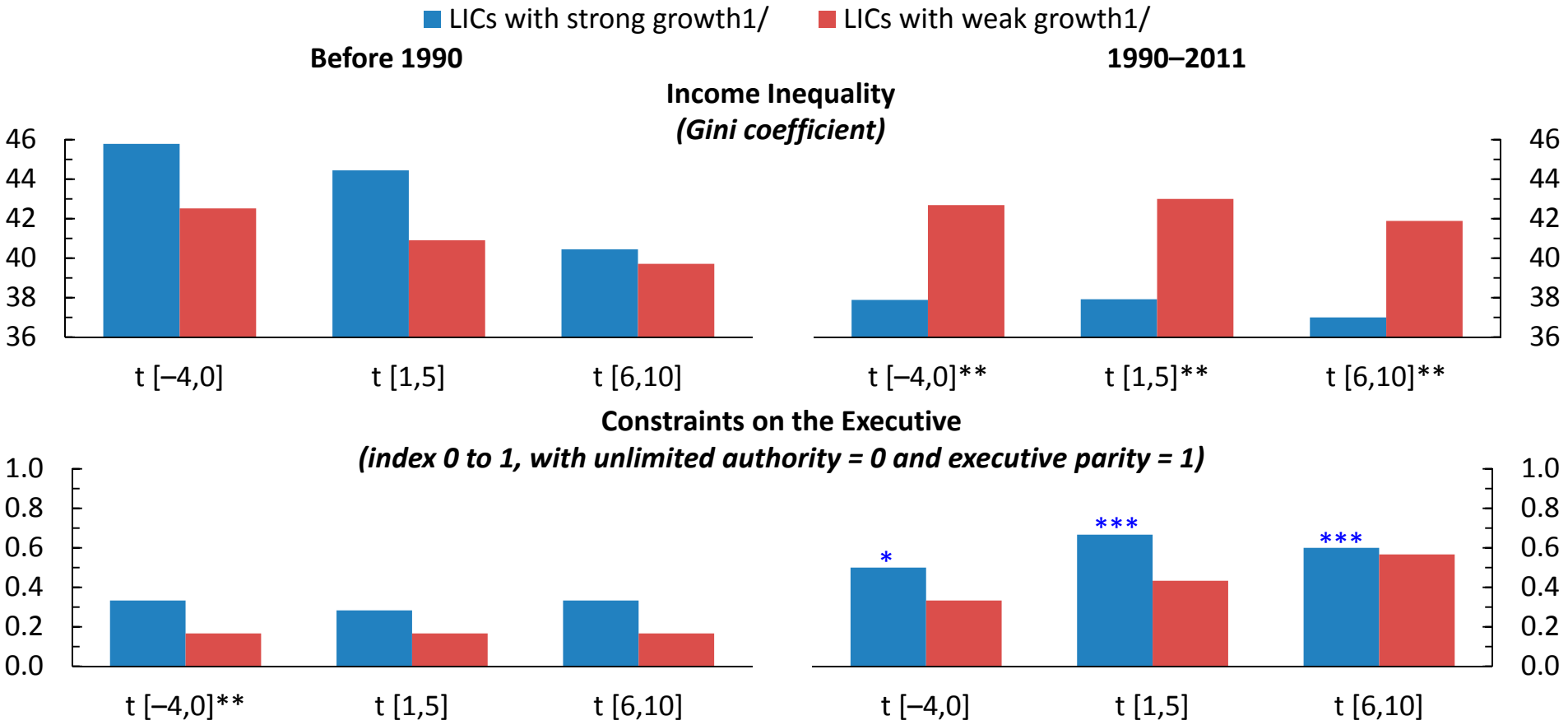
…lower income inequality and stronger political conditions



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Taken together, do some covariates stand out?

- Pull together a number of explanatory variables and jointly assess what is related to the chances of a new growth takeoff.
- Multivariate logistic regression model
  - Indicator for the start of a growth takeoff

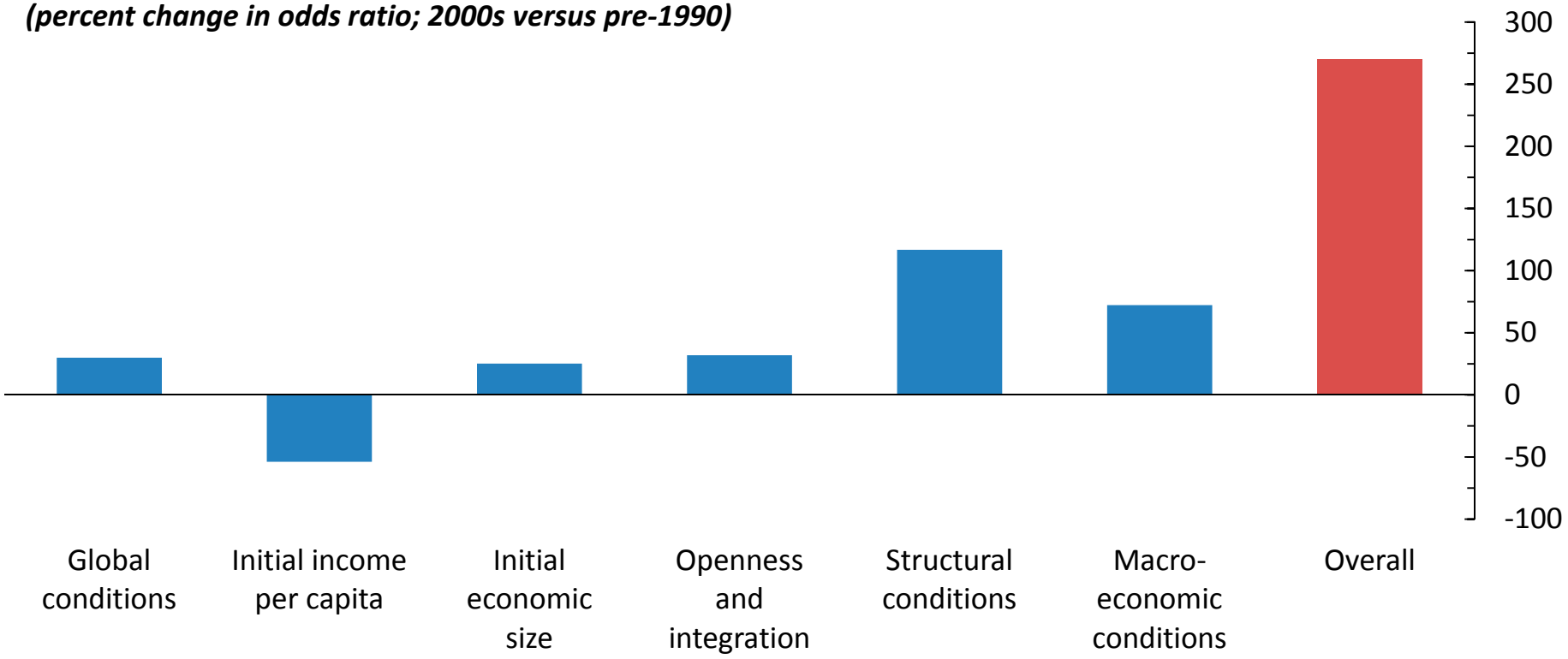
$$g_{i,t} = \left\{ \begin{array}{c} 1, \text{if economy } i \text{ starts a strong growth takeoff at time } t \\ 0, \text{if not starting or not in a strong growth takeoff at time } t \end{array} \right\}$$

  - Model chances of takeoff as function of covariates

$$P\left(g_{i,t} = 1 \,|\, x_{j,i,t} \forall j \in \{1, \ldots K\}\right) = \frac{1}{\exp\left[-\left(\alpha + \sum_{j=1}^{K} \beta_j x_{j,i,t}\right)\right] + 1}$$

Higher human capital, investment, competitive exchange rates, and lower debt strongly correlated with takeoffs. And chances of a takeoff have increased in the 2000s

Contributions to the Change in the Chances of a Strong Growth Takeoff
(percent change in odds ratio; 2000s versus pre-1990)

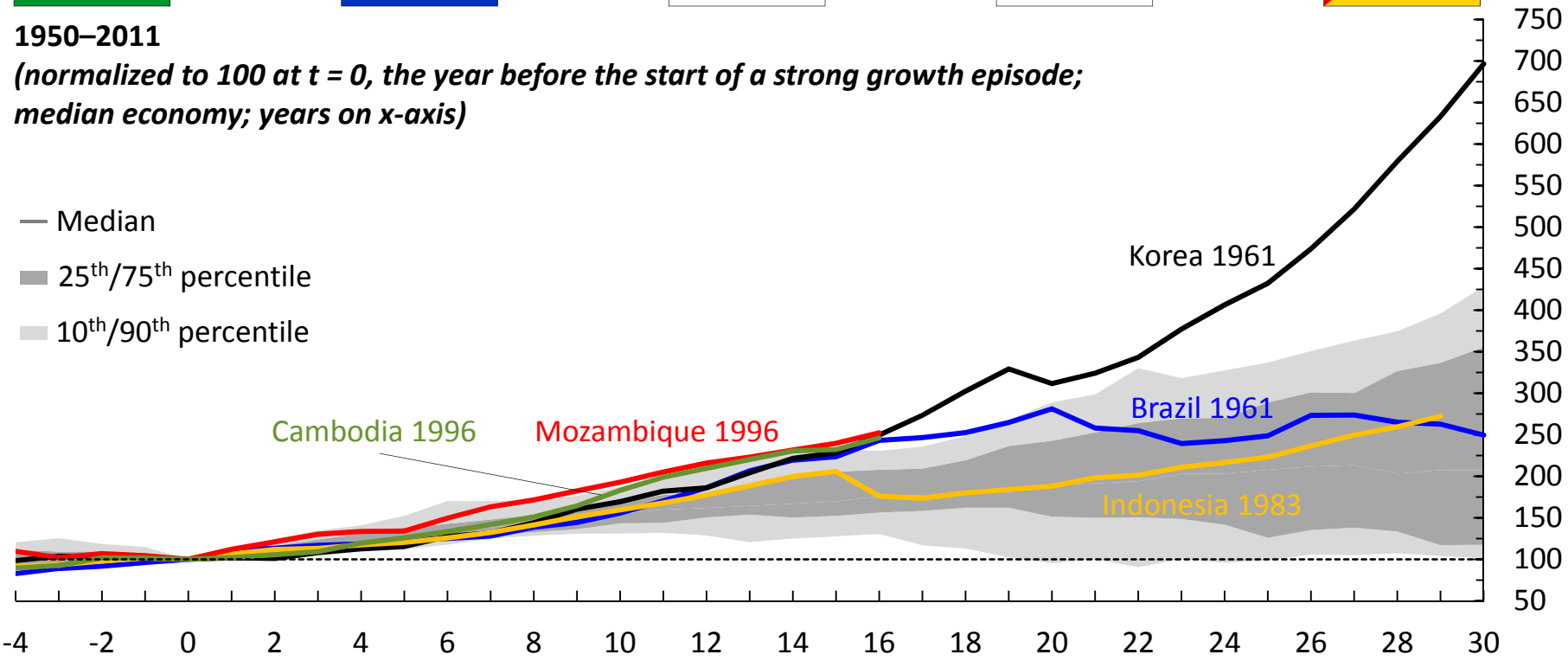


Note: The odds ratio is the probability of starting a takeoff divided by the probability of not starting one. The estimated contribution of the variables to the percent change in the predicted odds ratio is based on the logistic regression coefficient estimates in Table 4 (see text), for the full sample. The variable groups shown correspond to those in Table 4 (see text). The average values of the variables over either the period before 1990 or 2000–11 are used to calculate the predicted odds ratio. The associated predicted probabilities at these average values are 0.8 percent for the subsample before 1990 and 2.8 percent for the 2000–11 subsample. To calculate the overall change, the product of the contributions is used.

Case studies stress that sustaining takeoffs require sustained efforts to lower imbalances, and maintain competitiveness

1950–2011

(normalized to 100 at t = 0, the year before the start of a strong growth episode; median economy; years on x-axis)



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Today's dynamic LICs have had a good start, but history suggests that they need to sustain policy efforts

A strong comeback	LICs performance has rebounded with a second wave of takeoffs. Recent takeoffs have lasted longer than takeoffs prior to the 1990s.
Takeoffs are important	LICs that took off had a 50-60 percent gain in per capita output after 10 years. Only 5-15 percent gains for LICs that did not take off.
Similarities in takeoffs	Takeoffs in both generations saw sharply higher investment, saving and export growth compared with LICs that did not take off.
Current gen. on stronger economic footing	Takeoffs in current generation saw lower economic imbalances. ○ A greater reliance on FDI, and less on debt-financed investment ○ A faster implementation of structural reforms
History stresses the need to sustain efforts	If today's dynamic LICs sustain their recent policy momentum, they can avoid the setbacks that afflicted many dynamic LICs in the past

Thank you