

Please cite this note as:

OECD (2015), "Do Policies that Boost Aggregate Growth Generate Economic Instability for Individual Households?", *OECD Economics Department Policy Notes*, No. 25 April 2015.

# DO POLICIES THAT BOOST AGGREGATE GROWTH GENERATE ECONOMIC INSTABILITY FOR INDIVIDUAL HOUSEHOLDS?

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OECD Economics Department  
**Policy Note No. 25**

April 2015

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## **DO POLICIES THAT BOOST AGGREGATE GROWTH GENERATE ECONOMIC INSTABILITY FOR INDIVIDUAL HOUSEHOLDS?**

### **Main Findings**

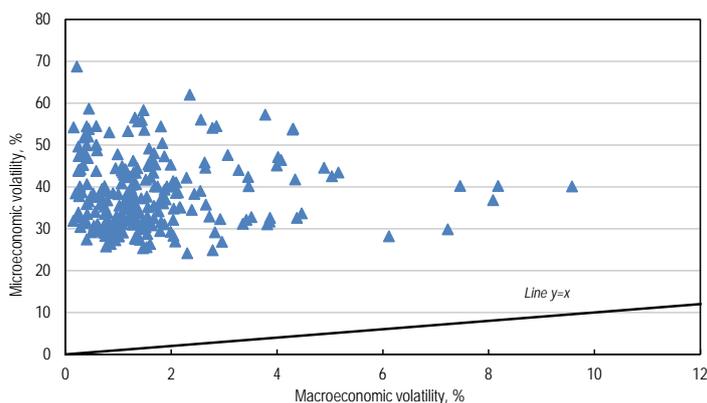
- Households have to cope with a large amount of economic uncertainty:
  - One in three households living in OECD countries sees their disposable income change by more than one third from one year to the next.
  - Household-level economic instability is only very loosely related to macroeconomic instability.
- Households generally suffer from greater income uncertainty in countries that are more unequal.
- Structural policies influence household-level economic uncertainty:
  - Intermediate levels of restrictions on lay-offs are linked with high instability of employment and earnings. Very tight restrictions are associated with more stability; however, flexible firing regulations not only generate employment and income stability, but they also boost growth.
  - Centralised and decentralised wage bargaining regimes provide greater stability of employment and earnings than intermediate regimes.
  - Stronger active labour market policies provide workers more employment stability.
  - Intermediate levels of competition for goods and services are generally associated with high employment instability. While tight restrictions generate a high degree of employment stability, very competitive settings, which encourage strong economic growth, also deliver employment stability.
- Countries which tightly regulate dismissals of workers (or severely restrict competition) find themselves in "marginal-reform traps". Marginal reforms boost growth at the cost of greater income uncertainty for households, but deep reforms do not increase income instability and can even reduce it.
- Different institutions, such as families or the welfare system, serve as shock absorbers and to a different degree in different countries:
  - Families: in southern European countries, other family members provide the single most important source of income smoothing. Their contributions offset more than 25% of the fall in the income of the household head when he or she suffers a large reduction in labour earnings.
  - The welfare system: in the Nordic countries, taxes and transfers are each as important as income from other family members in reducing the impact when the household head experiences a large labour earnings drop. Taxes, transfers and the behaviour of other family members each reduce the size of the shock by about 10% in Nordic countries.
- Reforms boosting growth by reducing the progressivity of taxation or social transfers exacerbate income uncertainty and inequality.

## Microeconomic instability matters more than macroeconomic instability for welfare

Economic policies do not only shape how much people earn, but also how stable their income and jobs are. The level of earnings and the degree of their stability both matter for well-being. Indeed, unpredictable changes in economic conditions around a given level create uncertainty. This uncertainty reduces welfare because most people are averse to risk. Countries with greater household-level instability report lower levels of well-being.

Economic instability is much higher for people than suggested by fluctuations in macroeconomic aggregates (Figure 1). Household disposable income growth is ten times more volatile at the micro than the macroeconomic level in most OECD countries. In a typical year between 1994 and 2010, one third of the households living in OECD countries saw their disposable income change by more than one third with respect to the preceding year. The high income variability at the micro-level reflects the many events that can generate large changes in earnings. For instance, large changes can occur when one household member becomes unemployed, takes up a job, goes on unpaid parental leave, restarts work afterwards, goes part-time, retrain or stops working temporarily when the household moves to a different location. Often these individual changes offset one another, which explains why macroeconomic instability is considerably lower.

**Figure 1. Microeconomic instability is much greater than and uncorrelated with macroeconomic instability**

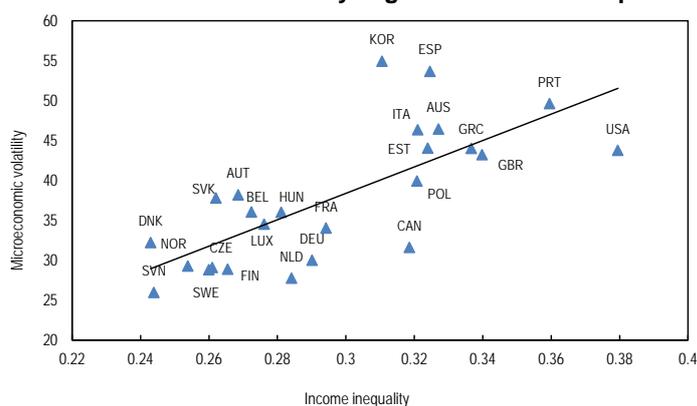


Note: Microeconomic volatility can be measured in different ways. A first, relatively natural measure takes the country average of individual-level standard deviations of disposable income growth over time. A second, more indirect one calculates the cross-sectional standard deviation of disposable income growth across households in each country. The two measures are conceptually different but extremely highly correlated (95%). The study uses both measures, and the chart plots the second one because it offers better country coverage. See Section 4.1 in the source reference below for a detailed description of volatility measures. Each observation represents a country at a specific year for the period 1994-2010. Macroeconomic volatility is calculated as the 3-year rolling standard deviation of real disposable income growth measured in the national accounts.

Source: Cournède, B., P. Garda, P. Hoeller and V. Ziemann (2015), "Effects of Pro-Growth Policies on the Economic Stability of Firms, Workers and Households," *OECD Economic Policy Papers*, No. 12, April 2015, OECD Publishing.

Households generally face greater income uncertainty in more unequal countries (Figure 2). The negative effects of uncertainty and inequality for welfare therefore tend to compound each other. Countries with greater household-level uncertainty typically score lower in surveys of well-being.

**Figure 2. Microeconomic volatility is greater in more unequal countries**



Note: Income inequality is measured by the Gini index of household disposable income. The Gini coefficient ranges from 0 (perfect equality) to 1 (one individual receives all of the income and the others none). Microeconomic volatility (in %) is the cross-sectional standard deviation of disposable income growth across households in each country. See the note to Figure 1 for more explanation about how this study measures micro-level volatility. Figures represent averages for the period 2005-10.

Source: Cournède, B., P. Garda and V. Ziemann (2015), "Effects of Economic Policies on Microeconomic Stability," *OECD Economics Department Working Papers*, No. 1201.

### **Economic policies influence the stability of labour income**

Considerable instability occurs on the labour market. Instability can take the form of changes in time worked – including periods of unemployment – or hourly earnings. Both forms of labour-market instability are high, and their importance varies considerably across OECD countries. Periods of unemployment and other changes in time worked account for around 50% of large drops in labour income (large being defined as more than 20%) in Germany and the United States. The other half comes from changes in pay per hour worked. This half-half split is far from universal. Periods of unemployment and other changes in working time represent less than 30% of large labour income drops in Greece, Italy, the Czech Republic and Slovakia.

Instability is not always bad: it can reflect a dynamic labour market with numerous job opportunities and ample social mobility. However, not all workers benefit from more dynamic labour markets. In particular, workers dismissed during downturns often suffer persistent earnings losses.

Economic policies influence labour market instability. Intermediate-level restrictions on lay-offs tend to generate high instability of employment and earnings. Tight restrictions bring a higher degree of stability, which comes, however, at the cost of lower economic growth. Flexible policies regarding lay-offs bring economic greater stability and stronger growth at the same time. Wage bargaining regimes similarly influence stability and growth. Centralised and decentralised arrangements are linked to stability and are generally considered growth-friendly. Intermediate (typically sector-level) arrangements fare more poorly for both stability and growth. Structural policies outside labour markets also matters for labour-related economic uncertainty. In particular, pro-competitive environments boost growth and stability; very tight regimes deliver also stability but at the cost of lower growth; and intermediate levels of restriction to product market competition are associated with employment instability.

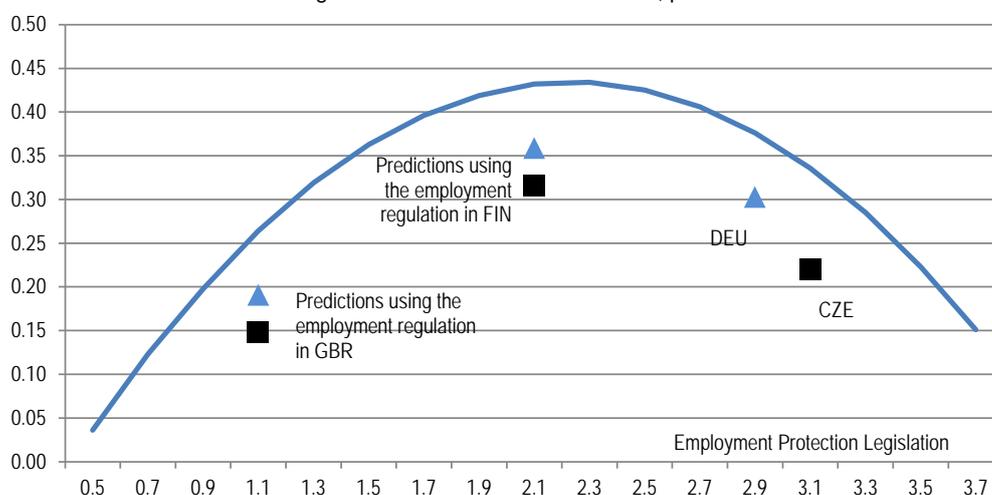
The consequences of reforms for instability therefore depend on the starting point and the depth of the change. For instance, in countries with stringent employment protection, such as the Czech Republic, Germany, Italy, the Netherlands, Portugal, Slovenia and Sweden, a marginal relaxation of dismissal restrictions might initially come at the cost of greater labour market instability for individuals. However, if employment protection is further relaxed, unemployment spells and other changes in time worked as well

as fluctuations in hourly earnings all tend to decline, as the labour market becomes more fluid, offering more hiring opportunities and better matches.

For the sake of illustration, consider two European countries that tightly restrict firings of regular workers: the Czech Republic and Germany. Empirical estimates indicate that, if these countries relax employment regulation for regular workers to reach a policy stance comparable to Finland's, the volatility of time worked would increase on average by 8 percentage points (Figure 3). Instead, if the reform goes deeper reaching UK values, instability would decrease by 9 percentage points on average. This underscores the benefits of deep reforms to employment protection: compared with small policy changes, deep reforms bring larger growth benefits while simultaneously increasing labour market stability.

**Figure 3. Starting from a tight policy stance, relaxing worker dismissals can have opposite effects on instability depending on the depth of the reform**

Predicted volatility in time worked, which includes the impact of unemployment spells, if the Czech Republic and Germany relax their firing restrictions to Finnish or UK levels, per cent

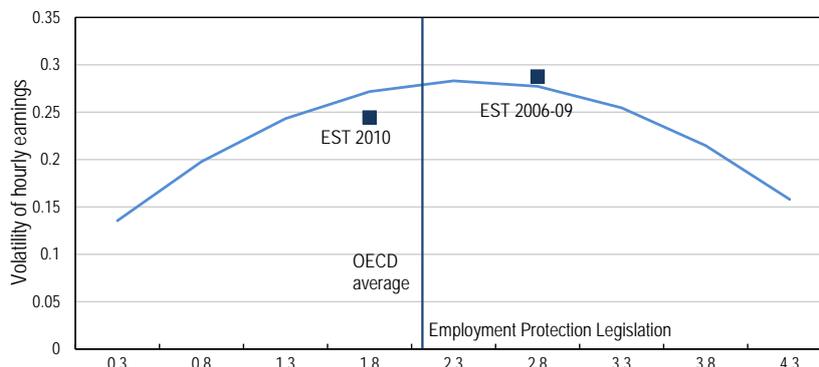


Note: The curve shows the estimated hump-shaped relationship between the volatility of annual hours worked (measured by the cross-sectional standard deviation of annual hours growth across individuals) and employment protection legislation (EPL), based on the estimates of panel data regressions at the country level for the period 1994-2010. See Cournède et al. (2015) for details on the empirical strategy and detailed estimates. On the right-hand side, the blue triangle shows the volatility of annual hours worked in Germany in 2008, and the dark square shows the same volatility in the Czech Republic in 2010. The triangle and square in the middle indicate which level of volatility the equations would predict for annual hours worked in Germany and the Czech Republic if both countries eased EPL to Finnish levels. The triangle and square on the left-hand side show the predicted volatility of annual hours worked for Germany and the Czech Republic if they further relaxed EPL to UK levels.

Source: Cournède, B., P. Garda and V. Ziemann (2015), "Effects of Economic Policies on Microeconomic Stability," *OECD Economics Department Working Papers*, No. 1201 and OECD calculations.

Estonia's 2009 reform provides an actual example of a deep change in labour-market policy (Figure 4). Estonia reduced the notice period and severance payments that are due when firing workers with regular contracts. This overhaul of employment protection legislation took effect in July 2009. As predicted by the regressions underpinning this study, employment instability (measured by the volatility of time worked) decreased by 4 percentage points. The estimates suggest that a milder reform might have resulted in higher, rather than lower, volatility.

**Figure 4. Hourly earnings volatility decreased after Estonia implemented a major reform of employment protection legislation**



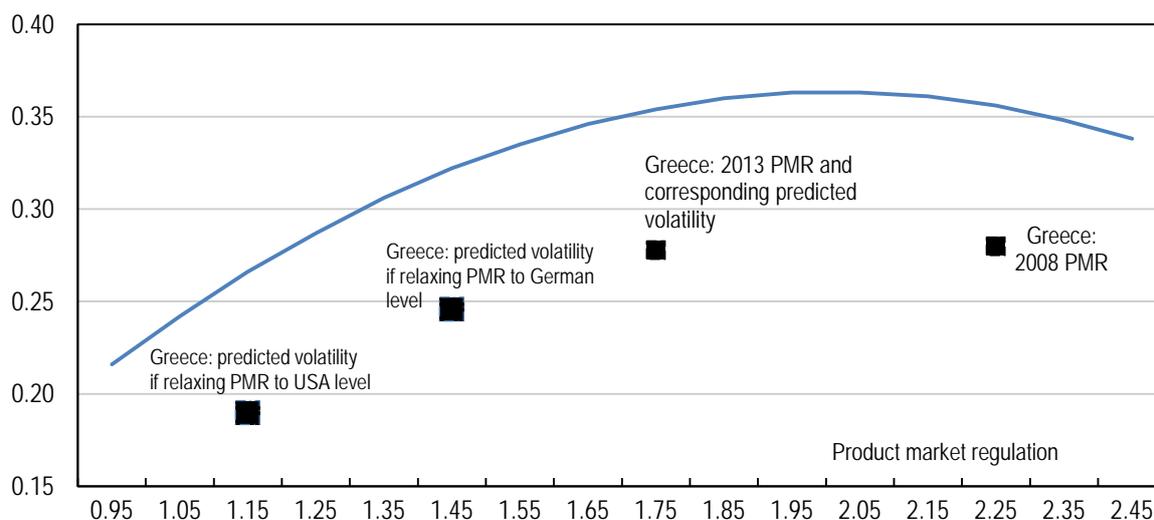
Note: The curve shows the estimated hump-shaped relationship between the volatility of hourly earnings (measured by the cross-sectional standard deviation of labour income growth across individuals) and employment protection legislation, based on the estimates of panel data regressions at the country level for the period 1994-2010. See Cournède et al. (2015) for details on the empirical strategy and detailed estimates. Squares plot data for Estonia before (average 2006-09) and after reform (2010). The vertical line shows the OECD average for the EPL indicator for 2010.

Source: Cournède, B., P. Garda, P. Hoeller and V. Ziemann (2015), "Effects of Pro-Growth Policies on the Economic Stability of Firms, Workers and Households," *OECD Economic Policy Papers*, No. 12, April 2015.

Policies not directly related to the labour market have a similar influence on labour earnings volatility. Labour market instability is likely to increase when relaxing restrictions on product market competition from a stringent to an intermediate policy stance. However, deeper deregulation can be expected to reduce labour market instability. Turkey, with stringent product market regulations, is in this position; assuming that the results also apply to non-OECD countries despite their different circumstances, Brazil, China and India also share this position.

OECD countries other than Turkey are located in the intermediate area where reforms deepening product market competition are expected to reduce labour market instability. Greece, Korea, Poland and Slovenia, which until 2008 imposed very tight restrictions on competition, have eased them since then and now find themselves in positions where further pro-competitive reforms are likely to reduce employment instability and foster growth. For instance, in Greece (Figure 5), the reforms that increased product-market competition between 2008 and 2013 should leave household-level employment instability broadly unchanged. However, the estimates underpinning this study suggest that going further would have beneficial effects for stability in addition to boosting growth. Increasing competition to the German level would decrease the volatility of time worked (a measure that incorporates unemployment periods) by a predicted 3 percentage points. If the reform took Greece to US levels of product-market competition, instability would be predicted to fall by 9 percentage points from its current level.

**Figure 5. Predicted effects on employment volatility after increasing product market competition**



Note: The curve shows the estimated hump-shaped relationship between the volatility of annual hours worked (measured by the cross-sectional standard deviation of annual hours growth across individuals) and the product market regulation (PMR) index. It uses the results from panel data regressions at the country level for the period 1994-2010. See Courmède et al. (2015) for details on the empirical strategy and detailed estimates. The square most on the right-hand side shows the volatility of annual hours worked in Greece in 2008 while the one immediately to its left shows the index of product market regulation (PMR) in 2013 and the corresponding level of volatility that the equation predicts (as there is no hard data yet on volatility in 2013). The squares further to the left depict predicted volatility of annual hours worked for Greece if the country further relaxed PMR to German or US levels.

Source: Courmède, B., P. Garda and V. Ziemann (2015), "Effects of Economic Policies on Microeconomic Stability," *OECD Economics Department Working Papers*, No. 1201 and OECD calculations.

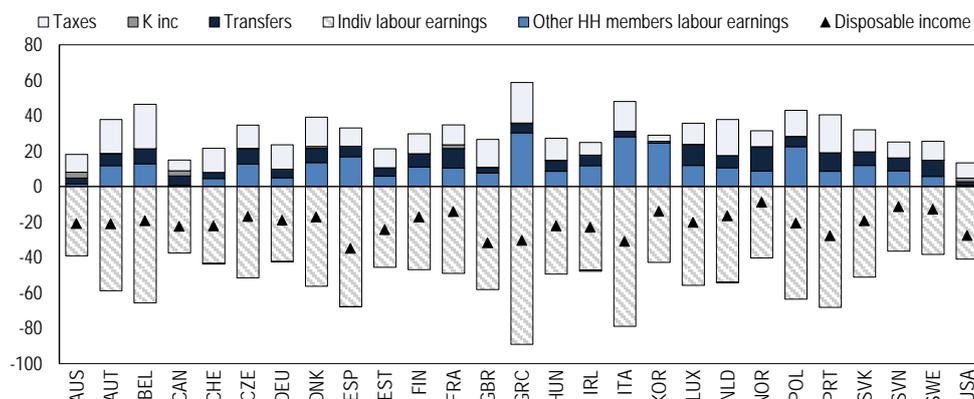
### Tax and benefit systems reduce economic instability

Tax and benefit systems affect the instability of the kind of income that truly matters for people: household disposable income, which measures the financial resources that people have available after paying taxes and receiving the government transfers to which they are eligible. Changes in taxes, transfers and in the income of other household members strongly reduce the impact of large changes in the labour earnings of the household head on overall household disposable income. The attenuation effect varies considerably across countries. Households in the Nordic countries, the Netherlands and Slovenia are unlikely to undergo a large change in disposable income even when the earnings of the household head change a lot. In contrast, large changes in the earnings of the household head generally propagate to household disposable income in the United States, Korea and most peripheral European countries.

Taxes and changes in the earnings of other family members represent the main factors that attenuate the impact of changes in household-head labour market earnings on household disposable income (Figure 6). The relative importance of these two factors varies across countries:

- Changes in the labour income of other household members are the most important smoothing instrument in southern European countries. They offset more than 25% of the reduction in the earnings of the household head when he or she experiences a large earnings drop. Taxes are also an important buffer, as they provide an offset of 15%, while that provided by transfers was only 5%.
- In the Nordic countries, other household members' labour income, taxes and transfers play similar roles in smoothing disposable income, with each contributing about 10%.

**Figure 6. Different factors determine the drop in household disposable income when individual labour earnings of the household head drop by more than 20%**



Note: The figure shows the contribution of each component to changes in household disposable income given that an individual has experienced a large change in individual labour earnings. For instance, for Greece, it shows that for individuals that experienced a large decrease in labour earnings (on average of 90%), household disposable income was attenuated, falling by only 30%. Other household member's labour income contributed positively to the attenuation with 32%, taxes with 22.5%, and transfers with 5.5%. Capital income did not contribute.

Source: Cournède, B., P. Garda, P. Hoeller and V. Ziemann (2015), "Effects of Pro-Growth Policies on the Economic Stability of Firms, Workers and Households," *OECD Economic Policy Papers*, No. 12, April 2015.

### Some reforms can boost growth without raising instability, while others result in a trade-off

Some reforms can raise growth without exacerbating income instability (Table 1). Reforms that bring product market regulation or the regulation of worker dismissals from tight or moderate settings to among the most relaxed settings belong to this category. They are likely to boost growth without increasing volatility in labour earnings provided the reforms are deep enough. However, marginal reforms in countries where policy settings are tight can involve trade-offs between long-term growth and microeconomic stability. Countries with tight settings can thus be caught in a marginal-reform trap, as marginal reforms raise trade-offs that deeper reforms eschew. In countries with moderate settings, there is no trade-off: reforms will boost growth and improve stability.

**Table 1. Pro-growth reforms present complementarities and trade-offs with stability**

A pro-growth change:	Effect of change on micro-level stability
Easing employment regulation for regular workers	☺
Increasing product market competition	☺
Boosting active labour market programme spending	+
Lowering unemployment insurance replacement rate	-
Reducing the total tax-GDP ratio	-
Reducing the size of social transfers	-
Reducing personal income tax progressivity	-

Source: Cournède, B., P. Garda, P. Hoeller and V. Ziemann (2015), "Effects of Pro-Growth Policies on the Economic Stability of Firms, Workers and Households," *OECD Economic Policy Papers*, No. 12, April 2015.

Spending more on active labour market policies is generally favourable for both output growth and stability. Expanding activation programmes tends to boost the employment of the less-skilled workers and by better job matching tends to boost growth. At the same time, these programmes tend to increase micro-level stability by improving matching in the labour market.

Other pro-growth reforms can raise a trade-off with microeconomic volatility. Reforms to reduce unemployment benefits fall in this category. They can boost growth if they maintain a sufficient level of income replacement to ensure good-quality matches in the labour market. However, they tend to reduce income stability by reducing a powerful income shock-absorption mechanism. This trade-off suggests that reforms of unemployment benefits should be coupled with an assessment of social safety nets to make sure that they can provide sufficient protection against adverse income shocks.

Reforms to reduce transfers or progressive taxes generally boost growth by improving incentives, but they are also likely to result in greater income instability. Indeed, transfers and progressive taxes typically contribute to stabilising disposable income in the face of shocks.

## SUGGESTED FURTHER READING

- Cournède, B., P. Garda, P. Hoeller and V. Ziemann (2015), “Effects of Pro-Growth Policies on the Economic Stability of Firms, Workers and Households,” *OECD Economic Policy Papers*, No. 12, April 2015. OECD Publishing.
- Garda, P. and V. Ziemann (2014), “Economic Policies and Microeconomic Stability: A Literature Review and Some Empirics,” *OECD Economics Department Working Papers*, No. 1115, OECD Publishing.
- Cournède, B., P. Garda and V. Ziemann (2015), “Effects of Economic Policies on Microeconomic Stability,” *OECD Economics Department Working Papers*, No. 1201, OECD Publishing.



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