Working Party No. 1 on Macroeconomic and Structural Policy Analysis

FINANCIAL STRUCTURE, REALLOCATION AND PRODUCTIVITY: AN OUTLINE

This document has been prepared for the Working Party No. 1 of the Economic Policy Committee by the Financial Policy and Regulation Workstream of the Economics Department.

Note: This paper has also been posted on the OECD Economics Department Workstreams Clearspace site under the category “Financial Policy and Regulation”.

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FINANCIAL STRUCTURE, REALLOCATION AND PRODUCTIVITY: AN OUTLINE

1. The rise of finance and subsequent financial and economic crash raise questions about the effect of modern financial sectors on labour market and productivity developments. The period since the onset of the global financial crisis has been marked by a large increase in lay-offs, weak income growth and a severe slowdown in productivity. In this project, the Financial Policy and Regulation workstream intends to pursue several strands of work to study the relationships of policies influencing finance and other financial sector developments with labour market outcomes and productivity.

2. The project has two analytical parts: (1) finance and labour market dynamics; and (2) finance and productivity:
   - The first part of the project on labour market dynamics examines how policies influencing finance and other financial characteristics affect
     - individuals’ earnings and employment stability,
     - firms’ employment adjustment patterns, and
     - the reallocation of workers in the economy and through this channel productivity.
   - The second part of the project on productivity proceeds in multiple steps:
     - a literature review that takes stock of the knowledge on finance and productivity,
     - an analysis relating policies influencing finance and other financial characteristics to capital reallocation across firms, and
     - an analysis relating policies influencing finance and other financial characteristics to productivity gains within firms.

3. For the parts of the work that involves cross-country comparisons, the project will examine the effects of financial policies and other financial characteristics defined as follows:
   - tightness of financial regulation using the IMF indicator by Abiad et al. (2010), prolonged from 2005 to 2010,\(^1\)
   - debt bias in corporate taxation, depending on data availability,

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- financial size: credit stock, stock market funding, financial sector value added share in GDP,
- financial structure: bank credit versus bonds, household versus business credit, foreign versus domestic debt, and
- quality of finance (cyclically-adjusted measures of non-performing loans and bank capitalisation, government support).

4. This outline proceeds by laying out a framework for the analysis of the project in Section 1. The following two sections describe the various modules planned on labour market dynamics and productivity. The final two sections conclude with further work that the workstream may undertake.

1. Framework

5. Financial systems differ in many ways across countries. These differences are likely to be related to a country’s institutions, policies and other factors. The tax treatment of corporate debt as opposed to equity, for instance, should matter for the financing decisions of firms. Another example is people’s risk aversion, which should increase the demand for safe assets relative to corporate bonds and stocks. The financial system in turn influences many aspects of economic life. Figure 1 sets out a simplified framework that displays relationships between the financial system and factors that affect or are influenced by it and how they link with businesses and workers.

6. Businesses typically fund their investments with retained earnings, outside equity or debt. The importance of banks and similar financial intermediaries in firm funding will naturally reflect the financing demands of businesses. The relationship is also likely to flow in the other direction: In countries where banks play a larger role, businesses will probably find it easier to rely more on loans than in countries where banks are smaller relative to capital markets. This two-way link between the structure of the financial system (banks versus capital markets) and structure of business financing (debt versus equity) means that both may be co-determined by the same factors, such as the corporate tax code or people’s risk aversion.

7. The simple framework of Figure 1 also suggests effects that the financial system and structure can have on businesses and workers. One of the most direct links from finance to the real economy is that business financing may matter for firm entry and exit and capital and labour reallocation. The functioning of the financial system, for example the availability of credit, is also likely related to investment in physical and human capital and the prevalence of self-employment. The framework does not emphasise the role of mortgage financing, because mortgages do not directly affect earnings instability and productivity, although they can matter for businesses and workers indirectly, for example by contributing to macroeconomic shocks. Macroeconomic conditions may more generally influence the financial system and many of the mechanisms at work.

8. The two main research questions this project investigates are about the extent to which the financial system and structure affect labour earnings instability and productivity. Earnings instability can be separated into changes in employment status, hourly pay and hours worked. Labour productivity can be decomposed into capital intensity and total factor productivity. The first part of the project will examine effects of finance on earnings instability and its components, the second part effects of finance on productivity. As the next two sections show, the project intends to shed light on some of the channels at work, such as labour and capital reallocation, investment and self-employment.
Figure 1. Framework

INSTITUTIONS & POLICIES
- Pension system
- Tax policy
- Financial policies
- Transparency & accounting standards
- Creditor and shareholder rights
- Corruption
- Contract enforcement, law & order
- Monetary policy framework

HISTORICAL FACTORS
- Colonial past
- Legal origin
- Timing of industrialisation

PREFERENCES
- Risk aversion
- Preferences for saving

FINANCIAL STRUCTURE
- Non-financial businesses
- Financial intermediaries

Changes in macroeconomic conditions

LABOUR EARNINGS INSTABILITY
- Employment instability
- Changes in hourly pay
- Changes in hours worked

LABOUR PRODUCTIVITY
- Capital intensity
- Total factor productivity

INSTITUTIONS & POLICIES
- Pension system
- Tax policy
- Financial policies
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- Monetary policy framework
2. Finance and labour market dynamics

Module 1: Financialisation and labour market dynamics from the worker perspective

9. The work will investigate whether policies influencing finance and other financial market developments affect earnings and employment stability. The results will shed light on the hypothesis laid out in the previous section that the financial structure has implications for the earnings stability that individuals experience from one year to the other. The module will also investigate whether economies in which finance has a greater role involve more frequent movements between jobs or in and out of work. Depending on data availability, it will examine as well the extent to which such effects occur within or across different occupations and employment types. Besides, finance can deliver substantial well-being benefits by providing tools to smooth consumption in the face of shocks, but lack of available cross-country micro-data precludes analysing this role here.

10. This module will use harmonised micro-data from household surveys, which allow observing income and employment transitions. Different measures of income stability can be used, including cross-sectional and rolling window measures (see Cournède, Garda, Hoeller and Ziemann, 2015). The reliance on individual-level data in this module allows the use of a rich set of control variables and the identification of differences in effects depending on individual characteristics. Additionally, and in contrast to the firm-level data used in Module 2, micro-level household surveys provide detailed information on the level of churning between jobs, which cannot be inferred from observing the stock of employment in each firm.

11. The work could explore industry heterogeneity as effects may be stronger for industries relying more on external finance as an input. The project could also consider corporate governance (although appropriate indicators remain to be identified) as a link in the chain running from financial market policies via financial structure to human resource management and speed of reallocation.

Module 2: Finance and labour reallocation across firms (in cooperation with Productivity workstream)

12. This module will explore the influence of policies shaping finance and other financial characteristics on the extent to which workers are reallocated towards more productive firms. It will assess the role of financial alongside other policies and institutions in the context of a larger module on structural policies, labour reallocation and productivity. The work will use firm-level data (Orbis). This large micro-dataset is particularly suitable to construct measures of productivity at the firm level. Such measures of productivity cannot be computed with household surveys, which lack the necessary information about employers’ characteristics.

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3. Some linked employer-employee datasets retrace the exact movements of workers across firms and contain sufficient information to construct productivity measures at the firm level. Nonetheless, such administrative datasets are only readily available for a very limited number of OECD countries.
3. Finance and productivity

Module 3: Finance and productivity: A literature review

13. The financial sector is expected to underpin productivity growth by facilitating investment, innovation and the reallocation of labour and capital, but the simultaneous trends of financial expansion and productivity stagnation have raised questions about the finance-productivity linkages. This literature review proposes a framework to organise these links and provide an overview of the economic literature with a focus on recent empirical papers. The review summarises the state of knowledge and draws implications about areas for further research. It is available on the OECD Economics Department Workstreams clearspace site under “Financial Policy and Regulation”.

Module 4: Finance and capital reallocation (in cooperation with Productivity workstream)

14. This module will investigate how policies shaping finance and other financial characteristics influence capital reallocation across non-financial firms, based on the methodology currently being developed by the Productivity workstream. It is parallel to the module on labour reallocation and will also evaluate other policies and institutions, relying on the Orbis firm-level database.

Module 5: Finance and firm-level productivity growth (in cooperation with Productivity workstream)

15. This module will investigate how policies shaping finance and other financial characteristics influence within-firm productivity growth for non-financial firms. As such, it will complement earlier findings on labour and capital reallocation and will recognise that policy and structural factors that influence the ease of reallocation will also shape firms’ incentives to undertake costly (within-firm) productivity-enhancing investments (see Andrews and Criscuolo, 2013). It will rely on firm-level regressions of productivity on growth at the frontier, distance to the frontier and policies, using the Orbis firm-level database.

4. Potential additional or alternative research avenues

16. The following research avenues could enrich the above-mentioned modules or provide alternatives in case some of them proved unsuccessful:

- Assemble cross-country time series of aggregate balance sheets for financial firms, non-financial firms and households, and evaluate how policies jointly influence the balance sheet structure (leverage) of financial intermediaries, non-financial firms and households.

- Re-evaluate the OECD work on finance and inequality in light of an extension of the financial regulation indicator from 2005 to 2010. This could shed valuable new light on earlier findings.

- Also re-evaluate the OECD work on finance and growth (Cournède and Denk, 2015), especially the role of financial structure, using the extension of the IMF financial deregulation indicator.

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Decompose the existing OECD estimates of the effect of finance on growth into productivity and employment.

Document changes in financial sector activities, in particular in the share of activities related to financial intermediation, and examine their relationships with growth.

5. Module 6: Policy implications

17. This module would draw policy implications relying on all previous modules and other relevant OECD and external work to revisit financial policy reforms for promoting stronger, more inclusive productivity growth.