

OECD G20 Policy Paper on Economic Resilience and Structural Policies

Summary of main conclusions

Economic resilience is essential to achieve strong, sustainable and balanced growth, as more resilient economies are less prone to suffer severe downturns, rebound faster from negative shocks and adapt easier to structural changes and megatrends. Structural policies and institutions can play a key role in strengthening resilience alongside growth:

- Trade openness, open and competitive product markets, and well-functioning labour markets increase the capacity to absorb severe shocks and sustain growth to manage emerging challenges.
- Well-developed and well-regulated capital markets support resilience. Reforms should aim at removing policy distortions that favour debt over equity financing and promote a greater diversification of financing instruments, which would particularly favour start-ups and SMEs. The OECD Codes of Liberalisation allow countries to reap the benefits from open financial markets and manage vulnerabilities.
- The design of tax policies and social safety nets could be improved to strengthen economic resilience, reduce trade-offs with long-term growth, and make growth more inclusive.
- Stronger institutions contribute to resilience by improving the quality of policies and policy implementation, reducing policy uncertainty and increasing the economy's and people's ability to withstand negative shocks.

This paper suggests principles to guide G20 efforts to strengthen economic resilience through structural reforms in these areas.

1. Economic resilience: concepts and importance for G20

Economic resilience is a key policy priority to achieve strong, sustainable and balanced growth (SSBG) for G20 economies. In addition, more resilient economies reduce the risks of negative spillovers to other countries and make global safety nets more credible.

Strengthening economic resilience includes all of the following elements:

- Ex-ante resilience: Reducing the vulnerability of economies to severe shocks
- Ex-post resilience: Strengthening the capacity to absorb and overcome such shocks
- Supporting sustainable and inclusive growth in the face of risks and pressures related to structural challenges and megatrends.

Managing vulnerabilities could in principle be seen as unrelated to long-term growth, but the empirical evidence for advanced and emerging economies shows that both issues are linked (Mourougane, 2016; Ollivaud and Turner, 2014). GDP growth rates, rather than oscillating closely around the average growth rate, are characterised by the occurrence of extreme, negative and positive, tail events. Analysing the effect of policies along the distribution of GDP growth rates,

allows identifying jointly the effects of policies on tail risks as well as average growth (Caldera Sánchez and Röhn, 2016). For example, mitigating negative tail risks is a policy objective, but some policies dampen both sides of the distribution and end up reducing average growth, presenting a trade-off for policy makers. There are potentially important linkages, trade-offs and complementarities, between policies that promote growth, policies that mitigate risks and policies that increase the economy's capacity to absorb shocks (Caldera Sánchez and Gori, 2016). The policy-relevant trade-offs and synergies can be summarised as:

- Growth-enhancing policies that might increase resilience
- Growth-enhancing policies that might reduce resilience
- Policies that reduce risks but might induce distortions or stifle entrepreneurship, undermining growth
- Complementarities between policies and combinations that increase resilience

2. The role of structural policies for economic resilience

Resilience is a key ingredient for achieving SSBG. Structural policies, in addition to their direct impact on economic growth through changes in factor accumulation and productivity, also impact on economic growth and well-being by affecting the economy's resilience.

First, while macroeconomic and financial policies and regulations are essential to reduce the vulnerability of economies to shocks, several structural policy settings affect ex-ante resilience. For example, tax policies intended to stimulate investment or facilitate homeownership frequently induce firms and households to take on excessive debt, which – combined with a weak financial regulatory framework – can lead to severe financial risks and deep recessions, as the recent global financial crisis has shown (Hermansen and Röhn, 2015). Fast financial development and capital account liberalisation spur economic growth, but can also increase vulnerabilities in the transition (Caldera Sánchez and Gori, 2016).

Second, structural policies play a key role in building ex-post resilience and helping economies to absorb shocks. Low barriers to entry and exit of product markets and policies that encourage flexible labour markets make it easier for resources to be reallocated from declining activities and businesses that exit towards new activities and businesses. Similarly, labour market and skills policies can help workers to find new opportunities. These structural policies also shape the degree to which the economy adapts to secular megatrends. Similarly, structural policies and institutions affect the degree of diversification across activities and markets, which in turn affects resilience as economies concentrated in a few markets or activities face difficulties in spreading the impact of idiosyncratic shocks from trading partners or in a particular sector.

In the short term, macroeconomic conditions and policies impact on the effectiveness of structural policies. For example, recent empirical evidence for OECD economies shows that reforms to employment protection legislation which increase labour market flexibility have positive long-term effects, but also significant negative effects on private-sector employment over the two-to-three years following such a reform when demand conditions are weak (OECD, 2016a). In addition, tight fiscal policy intensifies these contractionary effects if the government does not take measures, e.g.

expanding spending on active labour market policies to compensate households for the increase in income risk. This negative feedback loop can undermine growth and end up increasing financial and economic vulnerabilities. At the same time, a number of structural reforms (e.g. several product market reforms that encourage firm entry and job creation) have a positive short-term impact. Consequently, structural policies should be combined to mitigate potential negative short-term impact and designed in a coherent way with macroeconomic policies according to the economic situation and policy space available.

Excessive leverage and risk taking in financial markets, combined with external imbalances, are the most salient drivers of large economic downturns. Crises episodes are often preceded by real estate booms, a fast expansion of domestic credit and deteriorating external positions, such as large current account deficits and high foreign currency exposure. These vulnerabilities in turn result from or interact with a range of structural factors, including regulatory settings and financial development, as well as taxation of housing. In time of crises, the clustering of episodes across countries also points towards the importance of global factors and spillovers across countries through financial, trade and confidence channels. Therefore, it is important to take into account these interactions to design coherent policy packages to foster growth and resilience.

G20 economies also have to implement policies to prepare their economies to deal with important megatrends that present opportunities, but also challenges for the future. Population aging is already a pressing issue in many economies. A new wave of innovation is transforming economies and societies via digitalisation, giving rise to productivity gains in certain sectors but also potentially creating losers and adding to inequalities. Risks associated with climate change and transitioning towards a low-carbon economy also require policy action.

Policies for more resilient economies have to be designed taking into account the need for more inclusive growth. Weaker productivity growth and rising inequalities are trends that have intensified in recent years in many G20 countries. In this context, the diffusion of technological advances, and the related innovations in processes and business models, might not automatically spread to a large number of firms, such that their impact on aggregate economic growth and productivity growth might be limited. The benefits of higher levels of growth, or higher levels of productivity in certain sectors, might not be broadly shared, contributing to higher income inequality. This might in turn undermine public support for essential structural policies for growth and resilience such as trade and financial openness, weakening growth prospects and ex-post economic resilience. Therefore, policies should mitigate the risk of a vicious cycle setting in, with individuals with fewer skills and poorer access to opportunities often confined to operate in low productivity, precarious jobs, and - in many emerging-market countries - in the informal economy (OECD, 2016b).

The following sub-sections discuss the role of specific structural policy settings in achieving resilience.

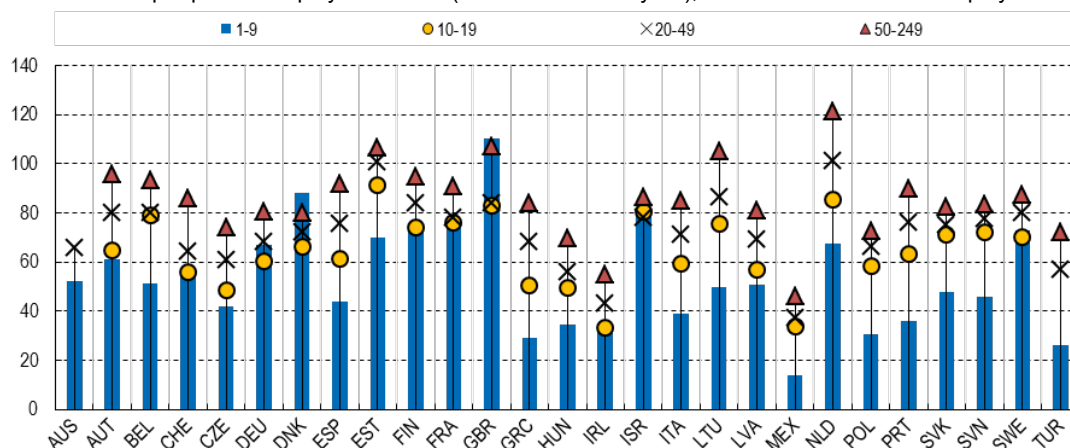
Barriers to entrepreneurship and competition

Product market reforms, especially those that reduce barriers to entry, foster economic growth by increasing productivity through several channels: i) more entry of young firms that bring radical

innovations and also put more pressure on incumbents to innovate; ii) greater market discipline, which improves management performance and scope for technology adoption; and iii) easier and cheaper access to inputs, which – because of easier resource reallocation – also raise the returns to investing in knowledge-based capital. Empirical evidence for OECD countries shows that reducing entry barriers, such as complex procedures to start and operate a business as well as removing regulatory barriers that favour incumbent firms, facilitates effective learning from the global frontier, improving the performance of national frontier firms relative to the global frontier but also boosting productivity growth of low-productivity firms, which often are small and young firms (OECD, 2015a).

SME make up for a significant share of employment in most G20 economies. However, it is not clear if having more SMEs, which in principle could allow for more flexibility, is conducive to economic growth and resilience. This is evident for example in the heterogeneity regarding labour productivity of SMEs across countries. While in some countries SMEs are highly productive, sometimes on average more than large firms, in others labour productivity in small firms is just one-tenth that of large firms (Figure 1). This reflects a series of underlying structural differences across economies in the types of SMEs that are prevalent. For example, in economies with high entry and exit rates, SMEs tend to be young and innovative firms that venture into new activities and are often the main source of disruptive innovations that boost productivity. In other cases, a large share of SMEs might reflect weak market selection, where old and low-productivity firms retain a significant share of labour and capital.

Figure 1. Labour productivity by enterprise size relative to large firms in OECD economies
Value added per person employed in 2013 (or latest available year), Firms with at least 250 employees = 100



Source: OECD Structural and Demographic Business Statistics database.

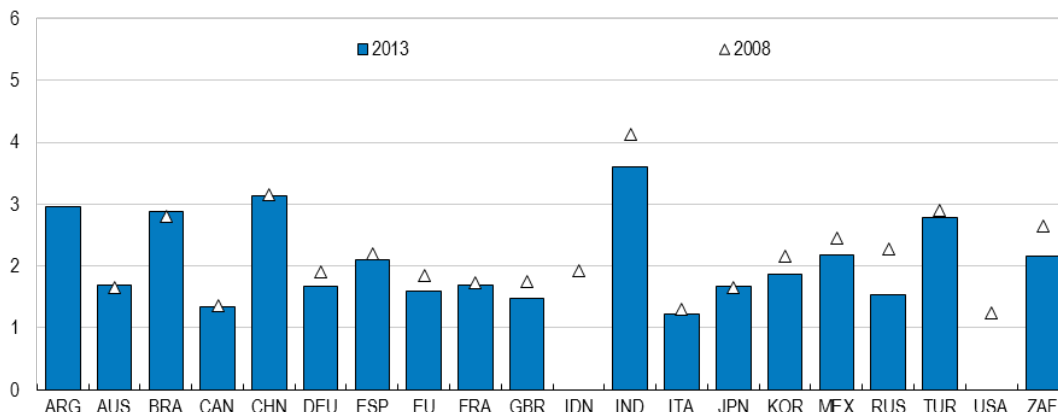
In terms of ex-ante resilience, while pro-competition product market regulations are associated with higher growth, these policies do not affect the likelihood of a severe downturn in economic activity (Caldera Sánchez and Gori, 2016). However, the most recent evidence for OECD economies, which includes also the aftermath of the global financial crisis, shows that stringent product market regulations reduce ex-post resilience by increasing the persistence of economic downturns (Sutherland and Hoeller, 2013). More generally, countries with higher barriers to entrepreneurship

experience on average significantly more macroeconomic volatility – in GDP, consumption as well as exports and imports, because the economy is less capable to withstand shocks (Ziemann, 2013).

Low barriers to entry and pro-competition regulations also provide an environment that facilitates experimentation with new products, processes and markets, which is key to productivity growth but can also contribute to a more diversified and resilient economy. However, other structural policies such as labour market regulations and bankruptcy procedures that lower exit costs (as discussed below), are also needed to facilitate such adaptability (OECD, 2015a). Combined with efficient financial and labour markets, lower entry costs provide stronger incentives for firms to find efficient solutions to deal with megatrends such as climate change, as well as addressing some secular downward pressures on productivity growth. For example, evidence for OECD economies shows that start-up firms play a crucial role in incorporating innovations in the area of green growth (Crisciolo and Menon, 2014).

There remains significant room to reduce barriers to entrepreneurship in advanced and emerging market G20 members (Figure 2). In addition to boosting growth, reforms to promote competition and an enabling environment would strengthen economic resilience by improving the capacity to absorb shocks and facilitating the reallocation of resources to adapt to new circumstances.

Figure 2. Barriers to entrepreneurship
Index scale of 0-6 from least to most restrictive



Note: EU is the average of the 21 EU members of the OECD.
Source: OECD, Product Market Regulation Database.

Barriers to international trade and foreign direct investment

Trade and investment openness boost economic growth by encouraging innovation and promoting competition, but can either increase or reduce resilience. The overall effect depends among other factors on the institutional setting. Reducing barriers to trade and foreign direct investment (FDI) increases exposure to international competition and strengthens incentives for firms to make productivity improvements, including through integrating better into global value chains, improved technology diffusion and increased productivity via upgrading. At the same time, to fully exploit the benefits of trade, countries also need to take complementary policies to increase infrastructure investment, skills development, and support those that lose in the transition.

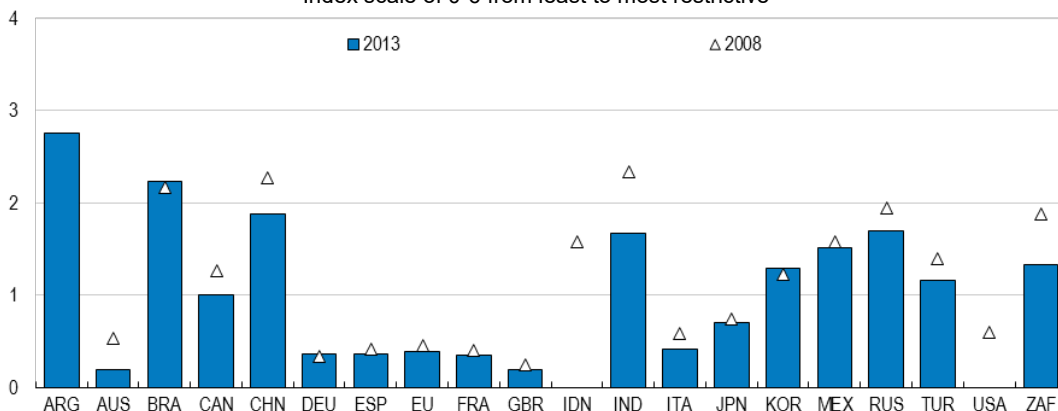
There is little evidence that greater trade openness per se has any significantly negative impact on resilience. For OECD economies, low explicit barriers to trade, such as tariffs, are actually associated with a lower incidence of currency crises. However, there is some evidence that trade openness exposes economies more to external shocks, although their economic impact in terms of amplification and persistence of shocks seems limited (Sutherland and Hoeller, 2013).

Trade openness tends to increase output volatility in different ways. More trade openness might increase volatility by inducing more specialisation and because sectors exposed to international trade are more volatile. Trade openness and specialisation also makes large firms more prevalent, which increases the economy's exposure to firm-specific shocks with potentially macroeconomic spillovers through backward and forward linkages (Di Giovanni and Levchenko, 2009 and 2014). Commodity producers have long experienced global shocks through lack of diversification.

The extent to which macroeconomic volatility is detrimental to long-term economic growth and welfare depends on policy settings in several key areas. Macroeconomic policies, such as a flexible exchange rate and avoiding excessive external imbalances, together with flexible product and labour markets to facilitate the reallocation of resources can cushion external shocks. Furthermore, the effects on households' welfare of greater firm-level or sector-level volatility, and the increased churn rate associated with trade openness and generally lower entry and exit barriers, can be mitigated by other policies such as active labour market policies (Cournède et al, 2015).

High barriers to FDI are detrimental to economic growth, but also resilience. Multinational companies contribute to capital investment and play a crucial role in raising productivity by creating positive knowledge spill-overs via new technologies and processes as well as training of the labour force or backward and forward linkages with local suppliers. FDI can also enhance market competition and contestability, but these interlinkages can also increase the country's exposure to firm specific shocks. In terms of resilience, regulatory restrictions on FDI increase financial risk to the extent that they reduce FDI and equity inflows, leading to a larger debt bias in cross-border flows, which is associated with greater incidence of financial crises (Ahrend and Goujard, 2012).

Figure 3. Barriers to trade and investment
Index scale of 0-6 from least to most restrictive



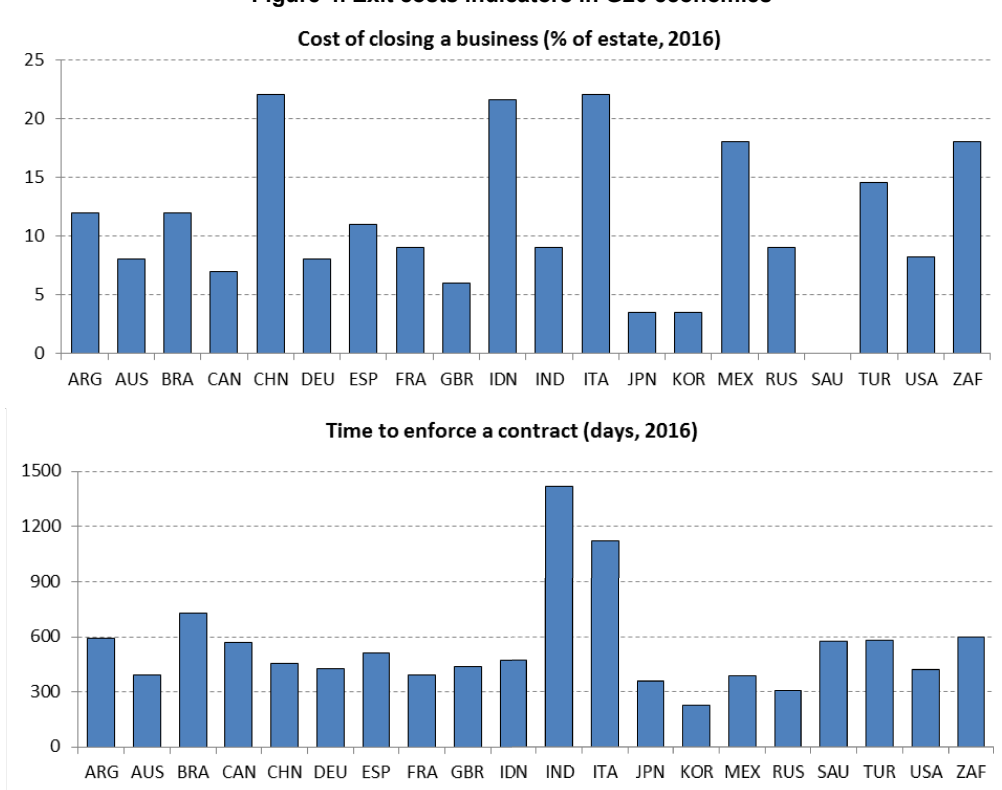
Note: EU is the average of the 21 EU members of the OECD.
Source: OECD, Product Market Regulation Database.

While in the early 2000s, restrictions discriminating against foreign investors – such as equity limits, screening and approval procedures, restriction on key foreign personnel, and other operational measures – declined on average across all sectors, more recently there has been little progress in reducing FDI restrictions. While G20 countries have continued to move towards greater liberalisation of services sectors, many services sectors remain partly off limits to foreign investors, holding back potential economy-wide productivity gains. Complementary policy action is needed to assure a level playing field and make sure that multinational enterprises (MNEs) do not lead to an erosion of the tax base, which can reduce the fiscal space to deal with shocks.

Efficient bankruptcy regimes and a well-functioning judiciary

Efficient bankruptcy regulations are crucial to allow for swift and low-cost exit of less productive and insolvent firms and therefore raise productivity by allocating production factors to more efficient and innovative business ventures, as well as to absorb shocks and respond to fundamental economic trends. The speed of resource reallocation is also affected by the time and financial resources required for the full completion of all legal procedures to wind up a business and the obstacles to the use of out of courts arrangements. Therefore, a well-functioning judiciary to enforce these regulations is crucial for the effectiveness of – and the incentives for stakeholders to use – formal insolvency procedures.

Figure 4. Exit costs indicators in G20 economies



Note: The costs included are court fees and government levies; fees of insolvency administrators, auctioneers, assessors and lawyers; and all other fees and costs. They are expressed as a percentage of the value of the debtor's assets. For more details see: <http://www.doingbusiness.org/methodology/resolving-insolvency>
 Source: World Bank, Doing Business database.

Efficient bankruptcy procedures contribute to resilience in at least two ways. First, by strengthening market selection and the process of resource reallocation, it increases the capacity of the economy to absorb shocks. Second, inefficient insolvency regimes often act as a barrier to addressing the rise in non-performing loans, which tie up capital and burden banks' loan officers with restructuring tasks rather than making new loans that could finance investment. Moreover, in the absence of a suitable debt restructuring framework, over-extended firms could have little incentive to invest because any return is used to service their debt. From this perspective, an efficient insolvency regime and a suitable judiciary also contribute to reducing vulnerabilities in the financial sector (Adalet McGowan and Andrews, 2016).

Labour market and social policies

Labour market and social policies matter for economic growth, because they generally affect job turnover and the process of resource reallocation. They are also key policies that affect people's well-being through income and employment.

While there is little evidence of labour market and social policies directly influencing ex-ante resilience, there is significant evidence that these policies have an effect on the capacity of the economy to absorb shocks. Empirical evidence for OECD economies shows that stringent employment protection provisions for regular workers are associated with weaker labour market outcomes that undermine growth and they also tend to increase the persistence of recessions (Sutherland and Hoeller, 2013). Strict employment protection for regular workers tends to reduce resilience because it induces an excessive reliance on temporary workers, which leads to adjustments mainly based on the employment margin, increasing the social costs of economic downturns in terms of unemployment (OECD, 2012).

Co-ordinated collective-bargaining institutions can have a positive impact on resilience by allowing wages to adjust to changes in macroeconomic conditions (OECD, 2012). This is the case when collective bargaining institutions allow for wage co-ordination, which induces more flexibility to absorb negative shocks. However, uncoordinated and rigid sector-level bargaining systems that rely heavily on government-issued coverage extensions and which do not provide much scope for struggling firms to deviate from sectoral norms make economies less resilient in absorbing shocks as they increase the persistence of shocks (Sutherland and Hoeller, 2013).

Effective ALMPs and policies to retrain or upskill workers can speed up the recovery after an adverse shock by accelerating the re-employment of job losers and improving job matching. Empirical evidence for OECD countries shows that more spending on ALMPs is associated with less extreme negative growth shocks, less persistent recessions and also more resilient labour markets, which in turn favours inclusiveness, as they increase re-employment probabilities of displaced workers (Caldera Sánchez and Röhn, 2016; OECD, 2012).

Given the large share of informal employment in many EMEs it is important to strike the right balance between protecting workers more effectively and providing strong work and formalisation incentives. Therefore, a priority area of reform for EMEs is to adopt more effective labour laws and regulations to protect workers, including employment protection legislation, health and safety

legislation, as well as work-time regulations. At the same time, a comprehensive approach to curb informality is needed. This includes making formality more attractive to workers (e.g. by providing more and better benefits linked to formal employment), as well as reducing the costs of formalisation for businesses and strengthening monitoring and enforcement of regulations (OECD, 2015b).

Housing policies

Overly stringent planning and zoning can also contribute to financial vulnerabilities by raising house price levels and volatility, inducing households to take on excessive mortgage debt and expose them to large downward price corrections (Andrews et al, 2011). Additionally, restrictive housing policies, such as strict rent regulation, can hamper housing investment as well as supply and limit labour mobility. This raises structural unemployment and reduces the job matching (Adalet McGowan and Andrews, 2015). Furthermore, it also reduces ex-post resilience by making it more difficult for the economy to adjust rapidly to changes in local labour market conditions.

At the same time, housing, zoning and planning policies can raise some trade-offs with equity objectives, such as social housing, which is an important tool to improve access to affordable housing for the most vulnerable but which can also act as a barrier to labour mobility. Therefore, policies should be designed carefully to balance equity, efficiency and financial stability objectives.

Social safety nets

Social safety nets play an important role in mitigating the costs of economic downturns for households. In all G20 economies, especially the advanced economies, pension and health systems can be strengthened to better deal with population aging and reduce the pressure on public finances, which in the long term could undermine economic resilience. In particular, given the large uncertainty and political economy of reform that requires often long transition periods when reforming social institutions, it is helpful to adopt automatic adjustment mechanisms that may help social institutions adjust gradually to secular changes. Automatic adjustments can attenuate dynamic inconsistency problems, which arise as public preferences for certain social policies and institutions change over time. Automatic adjustments may yield a durable and better balance between sustainability and adequacy, which would also ensure a higher degree of intergenerational fairness (Fall et al, 2014). An example of such a policy is indexing the retirement age to life expectancy.

Many EMEs have fragmented social insurance systems, which are less effective in protecting people from shocks as they are characterised by small risk pools (Fall et al, 2014). While fragmented systems might enjoy a certain degree of fiscal sustainability, this undermines well-being by inducing incomplete and inefficient self-insurance responses and can contribute to macroeconomic imbalances via excessive private savings. Therefore, reforms that provide more effective social insurance would contribute to resilience as well as well-being and inclusiveness. Given the pervasive level of informality in many EMEs, it is important to design social safety nets that provide incentives for labour participation and formalisation, while also strengthening the monitoring and enforcement of regulations.

Tax and expenditure policies

Government tax and spending policies and fiscal composition can contribute to resilience in many ways as noted elsewhere in this paper. Countries with stronger automatic stabilisers experience less negative growth shocks, but also less positive shocks. Unemployment insurance spending, which accounts for most of automatic stabilisers on the spending side in advanced economies, is an important stabilisation mechanism, although the generosity and design of unemployment benefits can have other effects. The benefits in terms of output stabilisation of higher automatic stabilisers and more generous unemployment benefits come at the price of lower average growth (Caldera Sánchez and Röhn, 2016). The strength of the automatic fiscal stabilisers basically depends on the size and progressivity of the tax system and the generosity of the unemployment insurance system, creating a trade-off between resilience and long-term growth, and sometimes also with equity objectives as tax and transfer systems play a crucial role in shielding household income from idiosyncratic and macroeconomic shocks (Cournède et al, 2015). For example, while a higher share of indirect taxes relative to direct taxes reduces the size of automatic stabilisers, it is associated with higher long-term growth (Arnold et al, 2008), but could also lead to more inequality.

A potentially efficient way to deal with these trade-offs is to design social safety nets in a more state-contingent way by linking expenditures to aggregate economic conditions. For example, in some countries (e.g. Canada and the US) eligibility of unemployment benefits is prolonged when the labour market deteriorates. Similar arguments could also be made for support for short-time working, which have shielded some labour markets from the full impact of the crisis (e.g. Germany).

An additional advantage of making the strength of automatic stabilisers more state-contingent – apart from easing the trade-off between long-term growth and short-term stabilisation and sharing the cost of adjustment more fairly – is to make fiscal policy more credible as the additional stimulus would be temporary by design, which could amplify the multiplier effect. However, such an arrangement would be effective only if combined with sound fiscal positions and credible fiscal policies and institutions.

Financial sector development

Well-functioning and developed financial markets are crucial for economic growth and resilience. Financial markets channel capital and resources to firms and play a fundamental role in the screening and selecting business ventures. However, while episodes of rapid domestic financial liberalisation are associated with faster growth, they often also trigger credit booms that lead to systemic banking and twin crises (Caldera Sánchez and Gori, 2016). This is in part the consequence of other structural policy settings that favour debt-based financing over equity-based instruments. The experience of OECD economies shows that economies with developed and open equity markets grow more and are also subject to less negative tail risks (Caldera Sánchez and Röhn, 2016). Therefore, to reap the long-term benefits from financial liberalisation and contain financial vulnerability risks, G20 economies have to adopt policies that render a more balanced and diversified structure of financing.

Estimates for G20 economies show that over the past half-century increases in debt finance of non-financial businesses have, on average, been associated with lower economic growth, while equity finance has, on average, been associated with higher growth. This suggests that in most G20 economies more corporate debt typically hampers growth, while more stock market financing generates a positive growth effect (Cournède and Denk, 2015; Cournède et al., 2015). The negative effect on growth of debt-biased finance is mainly due to its effects on financial vulnerabilities by creating incentives to build up excessive leverage, although the debt bias might also reduce the economy's capacity to absorb shocks by hampering entry of new firms that tend to contribute to economic diversification by introducing new products and reaching new markets.

A weak corporate governance framework represents often an important constraint to developing further domestic capital markets and firms' access to long-term equity financing, especially in EMEs. The global financial crisis has shown also important shortfalls in advanced economies in this area. In this sense, the *G20/OECD Principles of Corporate Governance* provide guidance regarding actions that would help increase the volume and quality of financing (OECD, 2015c).

SMEs with growth potential would benefit from a broader range of financing instruments

A financial system too focussed on debt financing, which often involves pledging collateral, would bias the allocation of resources towards existing firms against new business ventures, especially in knowledge-capital intensive industries. A lack of risk capital would undermine business dynamism, hampering the growth of successful SMEs, and economic diversification. Supporting the development of a broad range of non-bank financing instruments for SMEs in debt and equity markets, the latter being especially well-suited for small dynamic, innovation-oriented SMEs, would therefore have benefits in terms of economic growth and resilience for G20 economies (OECD 2015d, 2015e).

While there are inherent characteristics that make it difficult for SMEs to tap capital markets, there is scope to increase the use of instruments such as securitisation of SME loans, covered bonds, small cap bonds, private placements as well as public equity listings (OECD, 2015d, 2015e). There is also room to further develop venture and private equity financing, including capital for seed, early and later stage investments, for innovative start-ups.

The regulatory constraints for more market-based finance are multiple, which calls for a holistic approach (OECD, 2015f). Regulations concerning reporting standards and transparency, developing infrastructures to share key information (e.g. central credit registries) and availability of high-quality data are key elements. At the same time, efforts to build a market segment for SMEs' specific capital needs and actions on the demand-side, such as financial education for SMEs, and the supply-side, such as developing a proper investor base through better regulations, are also critical.

In this regard, the *G20/OECD High-level Principles on SME Financing* provide useful guidance for countries. Public financial support programmes for SME should help catalyse and leverage the provision of private resources, especially in risk capital markets. Public policy may also be important to kick-start or boost offer of financial products and services to young and growth-oriented SMEs. However, leveraging private resources and competencies is usually needed to ensure sustainable

financing in the face of rapid economic and regulatory change. Policies should aim at encouraging the participation of private investors and developing appropriate risk-sharing and mitigating mechanisms with private partners, which ensures proper functioning of public measures, including the allocation of government resources to their most efficient use (OECD, 2015g).

Policies should also be designed to avoid excessive risk-taking against the public interest, and potential crowding-out effects. This implies that the design of public programmes to enhance SME access to finance should ensure financial and economic additionality, along with cost effectiveness. Monitoring and evaluation of policies to ease SMEs' access to finance should be promoted. Ex ante and ex post evaluation should be performed regularly based on clearly defined, rigorous and measurable policy objectives and impacts and in co-operation with financial institutions, SME representatives and other stakeholders. Evaluation findings should feed back into the process of policy making, in particular when measures fail to meet their stated objectives or are found to have undesirable impacts (OECD, 2015g).

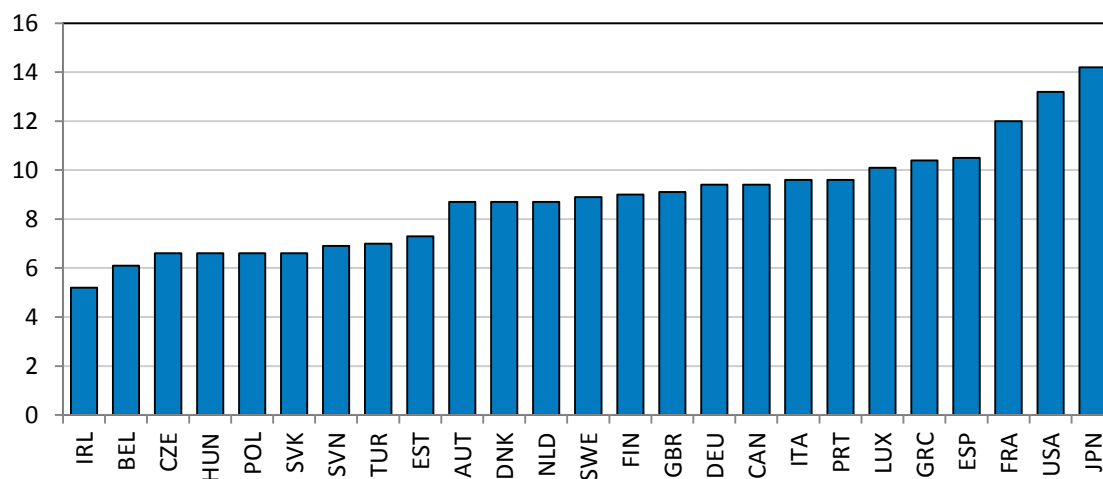
Tax policy and some financial policies bias financing towards debt instruments

Interest payments on debt are often deductible for income tax purposes. For example, households can often deduct interest expenses on mortgages. This encourages homeownership, which might also create incentives for long-term savings. However, it can also create incentives to taken on risky and excessive debt, in particular when in the absence of good financial education and related regulatory weaknesses, undermining economic resilience by fuelling housing booms and excessive leverage. Most tax systems in G20 countries provide favourable tax treatment for debt (e.g. corporate bonds and bank loans) over equity financing at the corporate level. In some countries, the domestic tax treatment of dividends and capital gains at the shareholder level reduces the debt bias at the corporate level. However, in open economies a large share of equity investments is owned by foreign investors not affected by domestic personal income and capital taxes. For this reason, it is useful to also focus on the debt bias of the corporate income tax system. At the corporate level, effective tax rates on equity finance generally exceed the tax rates on debt finance, primarily because interest expenses are cost-deductible (Figure 5).

This debt bias contributes to a more risky composition of capital flows – from more equity based instruments towards bonds and bank loans – which are associated with a higher incidence of balance of payments and banking crises. Furthermore, the tax-deductibility of interest expenses on mortgages has also contributed to housing booms in several economies, which are also associated with less resilience. Combined with better financial regulations and housing policies, reducing the debt bias of taxation would contribute to more resilient economies.

Policy co-ordination across countries to reduce the debt bias in the tax system would increase the effectiveness of national policies and contribute to reducing systemic risks. OECD studies show that international tax planning may compound the debt bias problem, as MNEs might locate external debt in entities in higher-tax rate countries to lower the marginal cost of debt at the MNE group level.

Figure 5. Difference between the effective average tax rates on equity and debt finance
(per cent, 2011)



Note: The calculations account for taxes levied at the corporate level but not for those paid at the personal level. In many countries, the majority of investments are financed by foreign investors (to whom the domestic personal income tax does not apply) and by investors exempt from the personal income tax (especially pension funds and charitable foundations). The effective average tax rates on equity finance apply to new equity.

Source: OECD estimations based on Courmède, B., O. Denk and P. Hoeller (2015), "Finance and Inclusive Growth", OECD Economic Policy Papers, No. 14; Centre for European Economic Research (2011), Effective Tax Levels Using the Devereux/Griffith Methodology, Project for the EU Commission, TAXUD/2008/CC/099, Mannheim.

A lower cost of debt raises the incentive to increase external leverage. Empirical evidence shows that the overall MNE group leverage is sensitive to the possibility to locate external and internal debt in higher-tax rate countries. This suggests that MNE groups with the possibility to manipulate the location of debt could have higher overall leverage as compared to other MNE groups. In terms of policies, relatively strict thin capitalisation and interest-to-earnings rules are found to lower the propensity of MNE groups to increase their external leverage through debt manipulation (OECD, 2015h).

In most G20 economies there are other policies that might also contribute to excessive leverage. For example, subsidies to state-owned enterprises, ailing firms or other forms of support for sunset industries weaken market selection and encourage lending towards risky and inefficient firms. Similarly, policies introduced during the crisis to provide short-term support during the liquidity crunch, such as extensive government loan guarantees to SMEs, are yet to be scaled back in some countries. Another example of policies that increase financial vulnerabilities are implicit government guarantees for national banks, which by increasing the size of the banking sector both in lending and borrowing countries, may favour cross-border bank lending over other instruments.

Capital account openness: managing transitions and spillovers

Greater capital account openness is associated with faster growth and a higher propensity to twin crises (simultaneous banking and balance of payments crises). The evidence for OECD economies shows that considering the overall effect, the pro-growth effects of greater financial openness outweigh the detrimental effects of greater incidence of twin crises (Caldera Sánchez and Gori, 2016). This means that while capital account openness is beneficial for long-term growth, the transition to an open capital account might bring significant financial risks and disruptions. However, it is important also to acknowledge that economic crises often have impact distributional and social

consequences, which points towards the need to adopt a set of policies that allow reaping the benefits of access to international finance but also contains financial risks.

The composition of capital inflows matters. Debt portfolio flows and cross-border bank loans are more risky as they increase the likelihood of a twin crisis taking place, whereas FDI and portfolio equity investment appear to be a safer form of financing (Ahrend and Goujard, 2012). This suggests that reforms that reduce the importance of debt finance in total flows are likely to reduce vulnerabilities associated with the financial system. To reap the benefits from capital account openness and reduce risks, policies should not aim to reduce the absolute volume of debt and credit flows, but rather encourage more FDI and equity portfolio flows. Policies that G20 countries could pursue are: i) removing restrictions to FDI; ii) avoiding implicit sovereign guarantees to banks (while maintaining the role lender of last resort of central banks to deal with liquidity problems); and iii) implementing policies to reduce the debt bias in taxation.

In the transition, capital account liberalisation requires complementary steps to deal with potential risks and avoid creating vulnerabilities. In the past domestic policies often have been reverted, at least temporarily, to deal with balance of payments problems and stabilise the domestic financial system. A strong framework to deal with these issues has several benefits linked to resilience. First, it helps reducing costly policy uncertainty. In the absence of pre-established rules, capital account restrictions can undermine policy credibility, which might increase the cost of funding and create a more risky composition of external financing, as openness might be perceived as temporary. Second, unilateral measures can create negative spillover effects to other economies, displacing rather than reducing overall risks. Finally, without rules that establish the conditions and instruments used to deal with temporary capital account problems, it is likely that countries might resort to inefficient emerging instruments that might hamper economic growth. For example, there is evidence for OECD economies that some macro-prudential policies reduce the risk of a severe downturn, but they also have a negative effect on average growth (Caldera Sánchez and Gori, 2016).

In this context, the OECD Codes of Liberalisation could be considered by G20 economies as a useful tool to: i) instrument international coordination to avoid negative spillovers; ii) provide a credible commitment device to gradual transition to capital account openness, iii) offer a transparent mechanism to establish exemptions and right instruments to be used during episodes of financial distress.

Institutional quality

Institutional quality affects not only long-term development prospects, but also economic resilience through various channels. Countries with weak institutions present lower long-term GDP growth, higher macroeconomic volatility and a higher incidence of crises (Acemoglu et al, 2003). Indicators of institutional quality, in particular government effectiveness, are associated with less severe negative tail risks (Caldera Sánchez and Röhn, 2016). This reflects that fact that countries with a stronger public administration are able to implement policies with a higher quality and solve coordination failures across different parts of the administration. Developing a professional and independent public service is crucial in this regard. The quality of institutions also affects resilience through its effects on economic diversification.

Without certainty about property rights, contract enforcement and rule of law, key markets (e.g. financial markets) for long-term productivity enhancing investments (e.g. innovation, human capital, and infrastructure) remain underdeveloped. This undermines growth, but also economic resilience as economies with weak institutions then specialise in a few goods with little sophistication. The strength of contract enforcement and the overall efficiency of the judicial system are also relevant factors in explaining cross-country differences in start-up dynamics. New firms lack which an established track record might find it harder to external finance or credit if contract enforcement is weak, as this might induce on relational contracting, with reputation embedded in long-term bilateral relationships favouring incumbents over entrants. Specialised courts, incentives for efficient out-of-court settlements, simplification of court procedures and proper training of judges are some instruments that might reduce uncertainty and costly time delays.

Corruption also undermines both growth and resilience given that in a context of reduced checks and balances public resources are likely to be assigned to projects related to rent-seeking rather than those with the highest social returns (OECD, 2013). It can also undermine financial stability as issues such as related lending are more likely to happen, which reduce the quality of the loan portfolio of banks and increase concentration risk (La Porta et al, 2003). Furthermore, corruption in public service undermines trust in public institutions which increases transaction costs and introduces distortions.

Transparency and accountability are crucial to creating an environment to curb corruption. Regulations and policies that ensure good accounting, internal control, and auditing systems in the public sector are crucial for transparent and accountable institutions that enable sustainable and balanced growth (OECD, 2013). Policies that encourage the legal protection of whistle-blowers and the existence of strong and independent media facilitate accountability.

3. Principles to guide G20 efforts to strengthen economic resilience through structural reforms

Reform priorities vary countries according to country-specific circumstances. Reforms should take into account potential complementarities and trade-offs between different structural policies in terms of their effect on economic growth and resilience, as well as their impact on other key policy priorities such as inequality and the environment, which matter per se and through potential feedback effects in the long term. Macroeconomic policies and conditions also matter for the effectiveness of reforms. Therefore, it is fundamental to take a comprehensive and coherent approach. Taking jointly into account structural, macroeconomic and financial policies to design reforms will help in delivering the appropriate policy mix that ensures inclusive and resilient SSBG.

Increasing the resilience of productivity

- Facilitate the reallocation process and market entry and exit by simplifying the processes for licenses and permits, particularly for start-ups and SMEs, reducing legal barriers to competition, and designing efficient bankruptcy regulations and reducing associated costs.
- Reduce barriers to FDI to attract more long-term financing that allows for better risk-sharing, learning from the technological frontier and ensuring spillovers to domestic firms.

Increasing the resilience of jobs

- Design unemployment benefits to encourage job uptake and effectively protect workers. Consider making the generosity of unemployment benefits or support duration conditional on the overall situation of the labour market to provide effective protection while reducing incentive problems.
- Design labour market regulations to allow labour to shift between activities, while protecting workers from income risk by providing training and support during transitions. Fund well-designed active labour market policies to cushion the negative short-term effects of shocks on worker's income, employment and the likelihood of reemployment.
- Reform social safety nets to facilitate adapting to population aging by introducing automatic adjustment mechanisms. Strengthen social insurance in EMEs to reduce excessive household savings for self-insurance and curb informality by adopting a comprehensive approach to increasing the benefits of formality, decreasing the costs of formalisation and improving enforcement of laws and regulations.

Increasing the resilience of financial structures

- Remove barriers to financial development and increase the amount of finance available for long-term investment, including by diversifying the sources of finance, and strengthen corporate governance to facilitate external and equity financing and avoid excessive risk-taking.
- Curb incentives to build-up excess leverage and financial risks by reducing the debt bias in tax policy, including by using effective thin capitalisation and interest-to-earnings rules, and by designing public support programmes that ensure financial and economic additionality and cost effectiveness.
- Consider adopting the OECD Codes of Liberalisation as a credible, rule-based, transparent and gradual approach to reducing capital account restrictions.

Increasing the resilience of institutions

- Implement sound accounting, internal control, and auditing systems in the public sector and strengthen the public administration by creating and developing an independent and professional public service.

References

- Acemoglu, D., S. Johnson, J. Robinson and Y. Thaicharoen (2003), "Institutional Causes, Macroeconomic Symptoms: Volatility, Crises and Growth", *Journal of Monetary Economics*, 50: pp. 49-123.
- Adalet McGowan, M. and D. Andrews (2016), "Insolvency Regimes and Productivity Growth: A Framework for Analysis", *OECD Economics Department Working Papers*, forthcoming.
- Ahrend, R. and A. Goujard (2012), "How do Structural Policies Affect Financial Crisis Risk? Evidence from Past Crises Across OECD and Emerging Economies", *OECD Economics Department Working Papers*, No. 966, OECD Publishing, Paris. <http://dx.doi.org/10.1787/5k97fmtj5vtk-en>
- Andrews, D., A. Caldera Sánchez and Å. Johansson (2011), "Housing Markets and Structural Policies in OECD Countries", *OECD Economics Department Working Papers*, No. 836, OECD Publishing, Paris. <http://dx.doi.org/10.1787/5kgk8t2k9vf3-en>
- Bouis, R. et al. (2012), "The Short-Term Effects of Structural Reforms: An Empirical Analysis", *OECD Economics Department Working Papers*, No. 949, OECD Publishing, Paris. <http://dx.doi.org/10.1787/5k9csvg4d56d-en>
- Caldera Sánchez, A. and F. Gori (2016), "Can reforms promoting growth increase financial fragility? An empirical assessment", *OECD Economics Department Working Papers*, forthcoming.
- Caldera Sánchez, A. and O. Röhn (2016), "How do policies influence GDP tail risks?", *OECD Economics Department Working Papers*, forthcoming.
- Caldera Sánchez, A., A. de Serres and N. Yashiro (2016), "Reforming in a difficult macroeconomic context: A review of the issues and recent literature", *OECD Economics Department Working Papers*, No. 1297, OECD Publishing, Paris. <http://dx.doi.org/10.1787/5jlzgj45b3q0-en>
- Calvino, F., C. Criscuolo and C. Menon (2016), "No Country for Young Firms?: Start-up Dynamics and National Policies", *OECD Science, Technology and Industry Policy Papers*, No. 29, OECD Publishing, Paris. <http://dx.doi.org/10.1787/5jm22p40c8mw-en>
- Cournède, B. and O. Denk (2015), "Finance and Economic Growth in OECD and G20 Countries", *OECD Economics Department Working Papers*, No. 1223, OECD Publishing, Paris. <http://dx.doi.org/10.1787/5js04v8z0m38-en>
- Cournède, B., O. Denk and P. Hoeller (2015), "Finance and Inclusive Growth", *OECD Economic Policy Papers*, No. 14, OECD Publishing, Paris.
- Cournède, B., P. Garda and V. Ziemann (2015), "Effects of economic policies on microeconomic volatility", *OECD Journal: Economic Studies*, Volume 2015: pp. 179-225.
- Criscuolo, C. and C. Menon (2014), "Environmental Policies and Risk Finance in the Green Sector: Cross-country Evidence", *OECD Science, Technology and Industry Working Papers*, 2014/01, OECD Publishing, Paris. <http://dx.doi.org/10.1787/5jz6wn918j37-en>

- Di Giovanni, J. and A. Levchenko (2009), "Trade Openness and Volatility", *Review of Economics and Statistics*, 91(3): pp. 558-585.
- Di Giovanni, J. and A. Levchenko (2014), "Country Size, International Trade, and Aggregate Fluctuations in Granular Economies", *Journal of Political Economy*, 120(6): pp. 1083-1132.
- Fall, F. et al. (2014), "Vulnerability of Social Institutions: Lessons from the Recent Crisis and Historical Episodes", *OECD Economics Department Working Papers*, No. 1130, OECD Publishing, Paris.
<http://dx.doi.org/10.1787/5jz1592t3646-en>
- Hermansen, M. and O. Röhn (2015), "Economic Resilience: The Usefulness of Early Warning Indicators in OECD countries", *OECD Economics Department Working Papers*, No. 1250, OECD Publishing, Paris. <http://dx.doi.org/10.1787/5jrxhgfx3mv-en>
- La Porta, Rafael, Florencio López-de-Silanes, and Guillermo Zamarripa, 2003. "Related Lending" *Quarterly Journal of Economics*, 118(1): pp. 231-267.
- Mourougane, A. (2016), "Crisis, potential output and hysteresis", *International Economics*,
<http://dx.doi.org/10.1016/j.inteco.2016.07.001>
- OECD (2012), *OECD Employment Outlook 2012*, OECD Publishing, Paris.
http://dx.doi.org/10.1787/empl_outlook-2012-en
- OECD (2013), *Issues paper on corruption and economic growth*, OECD, Paris.
<https://www.oecd.org/g20/topics/anti-corruption/Issue-Paper-Corruption-and-Economic-Growth.pdf>
- OECD (2015a), *The Future of Productivity*, OECD Publishing, Paris.
<http://dx.doi.org/10.1787/9789264248533-en>
- OECD (2015b), *OECD Employment Outlook 2015*, OECD Publishing, Paris.
http://dx.doi.org/10.1787/empl_outlook-2015-en
- OECD (2015c), *G20/OECD Principles of Corporate Governance*, OECD Publishing, Paris.
<http://dx.doi.org/10.1787/9789264236882-en>
- OECD (2015d), "Bank and capital market financing of small and medium-sized enterprises", in *OECD Business and Finance Outlook 2015*, OECD Publishing, Paris.
DOI: <http://dx.doi.org/10.1787/9789264234291-9-en>
- OECD (2015e), *New Approaches to SME and Entrepreneurship Financing: Broadening the Range of Instruments*, OECD Publishing, Paris.
DOI: <http://dx.doi.org/10.1787/9789264240957-en>
- OECD (2015f), *Opportunities and constraints for market-based financing for SMEs*, OECD report to G20 Finance Ministers and Central Bank Governors (September); available at <https://www.oecd.org/finance/financial-markets/Opportunities-and-Constraints-of-Market-based-Financing-for-SMEs.pdf>



OECD (2015g), *G20/OECD High-Level Principles on SME Financing*, Paper submitted to the G20, Antalya, Turkey (November); available at <https://www.oecd.org/finance/G20-OECD-High-Level-%20Principles-on-SME-Financing.pdf>.

OECD (2015h), *Measuring and Monitoring BEPS, Action 11 - 2015 Final Report*, OECD/G20 Base Erosion and Profit Shifting Project, OECD Publishing, Paris.
<http://dx.doi.org/10.1787/9789264241343-en>

OECD (2016a), *The productivity-inequality nexus*. <http://www.oecd.org/inclusive-growth/publications/The-Productivity-Inclusiveness-Nexus-Preliminary.pdf>

OECD (2016b), *OECD Employment Outlook 2016*, OECD Publishing, Paris.
http://dx.doi.org/10.1787/empl_outlook-2016-en

Ollivaud, P. and D. Turner (2014), "The Effect of the Global Financial Crisis on OECD Potential Output", *OECD Economics Department Working Papers*, No. 1166, OECD Publishing, Paris.
<http://dx.doi.org/10.1787/5jxwtl8h75bw-en>

Röhn, O. et al. (2015), "Economic resilience: A new set of vulnerability indicators for OECD countries", *OECD Economics Department Working Papers*, No. 1249, OECD Publishing, Paris.
<http://dx.doi.org/10.1787/5jrxhgjw54r8-en>

Sutherland, D. and P. Hoeller (2013), "Growth-promoting Policies and Macroeconomic Stability", *OECD Economics Department Working Papers*, No. 1091, OECD Publishing.
<http://dx.doi.org/10.1787/5k3xqs7c8d2-en>

Ziemann, V. (2013), "Do Structural Policies Affect Macroeconomic Stability?" *OECD Economics Department Working Papers*, No. 1075, OECD Publishing, Paris.
<http://dx.doi.org/10.1787/5k43krfillgtx-en>