Assessment and recommendations

Towards a less volatile economy, and a more inclusive society

Latvia is a small open economy with a population of around 2 million. Like other economies in Eastern Europe and the former Soviet Union, Latvia underwent major economic and social change since the early 1990s. After regaining independence in 1991, the transformation from planned to market economy was accompanied by fundamental reforms of political institutions and integration into the European Union and, in 2014, into the euro area.

Latvia has enjoyed strong economic growth

Over the past two decades, economic growth has been impressive, narrowing the income and productivity gaps relative to wealthier EU and other OECD countries. During the pre-2008 boom years, per-capita GDP growth was among the highest in the European Union, averaging some 8.5% per year between 2000 and 2007. Despite strongly growing income inequality, even families towards the bottom of the income distribution saw rising living standards.

But economic progress has been volatile and gains were unequally distributed

The global financial crisis resulted in a deep recession in Latvia with one of the worst output losses in the world. This led to dramatic fiscal consolidation measures, linked also to Latvia's need to accept an IMF/EU programme and its determination to adopt the euro. Soaring unemployment and unprecedented nominal wage adjustments caused aggregate wages in the economy to plummet by more than a third in two years. Since 2011, output recovery in Latvia has again been among the fastest in the European Union but in 2015 (second quarter) GDP remains some 6% below its pre-crisis peak. Workers' incomes started to climb only later and recovered less quickly than GDP. Significant wage cuts followed the recent crisis, but labour productivity below levels in comparator countries nonetheless creates challenges for competitiveness.

Latvia experienced rapidly rising income inequalities prior to the recent crisis: the traditional Gini coefficient rose steeply and continuously from below 0.25 in the early 1990s to around 0.35 since 2005. Persistently high poverty and structural unemployment were among the most visible symptoms of uneven growth patterns, even as overall inequality stabilised at very high levels during the recent crisis. As disadvantaged households struggle to hedge against economic uncertainty and the consequences of economic downturns, those facing prolonged or repeated hardship may find it difficult to take full advantage of economic opportunities during an upswing. Without counteracting policies, there is a risk that inequality remains at a very high level or, as during earlier recoveries, increases further

Highly volatile economic growth and one of the biggest income disparities in the European union create a pressing need for effective social policies. They also highlight the importance of well-functioning labour market institutions that support the necessary economic transformation, while encouraging the creation of employment opportunities for groups that remain underrepresented in the labour market.

Life satisfaction is low

Despite the remarkable narrowing of national income gaps relative to comparator countries, Latvians reported very low degrees of life satisfaction in the boom years prior to the Great Recession, and measured subjective wellbeing is still among the lowest in the European Union and lower than in some OECD countries with lower or broadly similar GDP per capita (e.g., Poland, Chile, Mexico). It is likely that high and increasing inequality, combined with the economic uncertainty resulting from the experienced boom-and-bust cycles are among the reasons why strong economic growth failed to translate into bigger and more widespread improvements in life satisfaction

A large linguistic minority population, not all of whom are citizens

Latvia has historically had an ethnic Latvian majority speaking Latvian, but also large minority populations (especially in urban centres) speaking different languages. The composition of these minorities has varied, with today's national minorities composed mostly of ethnic Russians (26% of the population). 37% of the population are native Russian speakers. Many ethnic Russians and Russian speakers immigrated to Latvia during the Soviet epoch. These immigrants and their descendants were not eligible for Latvian nationality in 1990, but were granted indefinite residence as "non-citizens".

The number of non-citizens has been declining, due to emigration, mortality and naturalisation. Non-citizens comprise 12% of the population in 2015, concentrated in the older population groups: 32% of the population over 65, and less than 3% of the population under 24. Even though a significant number of non-citizens have acquired Latvian citizenship in the past, the rapid ageing of this group means that naturalisation looks unlikely to be a main reason for the decline of the non-citizen population in the future

Although Latvian is the official language, the Russian language remains widely spoken. Minimum Latvian language proficiency requirements apply to a large number of occupations. There are still many Russian speakers who do not have a sufficient knowledge of the Latvian language to participate fully in the labour market: according to a recent language survey, almost one-third of native Russian speakers do not have a conversational level of Latvian, although only 6% have no knowledge at all of Latvian (European Commission, 2012, "Special Eurobarometer 386: Europeans and their Languages", http://ec.europa.eu/public opinion/archives/ebs/ebs 386 en.pdf). Opportunities to learn and improve Latvian language proficiency are provided by the state, principally to unemployed people by the public employment service (State Employment Agency, SEA) but also through other programmes. Nonetheless, bilingualism is not unusual, and not only among native Russian speakers. About 30% of native Latvian speakers use Russian on a nearly daily basis

Managing emigration and a shrinking population

The population has contracted by 25% in 25 years

The population is declining at a rapid pace due to ageing and very high emigration, with an overall loss of 25% over a 25-years span. Emigration has slowed after peaking during the recent economic crisis, but continues to exceed natural population decrease (i.e., mortality minus births) by a factor of 1.6 according to the population register in 2011-14, and by more according to estimates based on destination country data.

All economies of Central and Eastern Europe and the former Soviet Union saw declining birth rates from 1990, and Latvia was no exception. As in other OECD countries, Latvia's population is also getting older. However, the demographic challenges are more severe than in much of the OECD area or in other parts of Eastern Europe. Uncertain economic conditions at the family level are likely contributing factors to low birth rates and high emigration in Latvia.

The working age population is shrinking faster than in any OECD country

Latvia's population decline has been driven by low birthrates and by a net emigration rate higher than that of any OECD country. The population decline is fastest among the working age population, creating challenges for maintaining growth and boosting inclusiveness.

The working age population in Latvia is also shrinking faster than in any OECD country – and fell by 25% since 2000. Even with the most optimistic estimates of slower emigration, the working age population is projected to be almost 10% smaller in 2020 than in 2010. Low birthrates are part of this – the age cohort 0-4 in 2000 was half the size of the same cohort just ten years earlier – and fertility is likely to remain low in the years to come, as in many other OECD countries. The old-age dependency ratio is expected to increase by 20% in the next decade, to as much as six persons over 65 years of age per ten working age residents.

Steady net emigration, which spiked during the recent crisis and remains high, has affected all age groups. But its effects on the number of youth are especially notable, as emigration further exacerbates the effect of shrinking youth cohorts. Latvia's residents age 25-29 in 2015 numbered 144 000, at least 60 000 fewer than there would have been in the absence of emigration. Younger cohorts are much smaller and new entries to the working age population will be declining for the foreseeable future.

Even in the presence of a shrinking youth cohort and emigration, the size of the tertiary educated population in Latvia had been increasing due to higher educational attainment among youth. But since 2013, it has been falling. In addition, of those who graduated in Latvia between 2002 and 2009, about one-third was no longer in the country in 2014.

Latvia now has a substantial diaspora abroad

As a result of large and constant emigration, Latvia now has a substantial diaspora abroad. In 2010, about 12% of the Latvian-born population over the age of 15 was living abroad. The number has since increased and the factors pushing emigration are not likely to vanish in the short term.

Expectations of large-scale return do not appear realistic, as fewer than 20% of emigrants surveyed in 2014 planned to return within the next five years. After five years abroad, return becomes even less likely. About one in six recent emigrants has a foreign partner, and this is often a main obstacle to return. Little effort has been made so far to focus on Latvian graduates abroad, to establish a matching service between candidates abroad and Latvian employers, or to focus on strategic sectors for business co-operation.

Latvia is only starting to develop a comprehensive policy to maintain a relationship with this diaspora. Many of the elements are in place albeit with limited resources, building on the legacy of the political diaspora which developed during the Soviet epoch. The focus in the past has been on cultural and civic outreach, although it has recently started to shift towards economic co-operation and to return migration. Latvians abroad have the right to vote, and in most major emigration countries there are weekend language schools for their children.

Even without return, Latvia can benefit from its large diaspora. At least one in eight emigrants has a clear potential to develop business in Latvia – either because of concrete co-operation plans, or an existing business in Latvia. These contacts can be important. Maintaining ties with the diaspora can ensure positive ties in the future, including the potential to maintain remittance flows – which currently provide an average of 20% of income for the 10% of families which receive them

As remittances to families in Latvia decline, alternative means of attracting financial transfers will become more important. Similarly, as the number of educated Latvians abroad increases, scientific and technical collaboration should become a priority to foster positive contributions to Latvia's economy of these talents abroad.

Labour migration is a crucial channel for meeting Latvia's labour needs

Too little attention has been given so far to the possibility of meeting labour needs through labour migration. Labour migration will not compensate for the population loss through emigration but can be better used to meet unmet demand and to support economic growth.

Progress in this area is challenging as the same factors which are driving emigration are holding back immigrants. Yet international migrants do come to study, work or invest in Latvia. These growing channels for migration could be better harnessed to support retention. Currently, international students do not have a favourable framework for post-study stay. Labour migrants are not actively targeted (e.g., through outreach activities to thirdcountry nationals by employment services) nor given incentives to remain. Latvia has issued about 4 000 residence permits to investors (as well as about 8 000 to their family members) since 2010. Although the government has to date not carried out detailed evaluations of the motivation for obtaining residence permits via this route, there are strong reasons to believe that a large majority of these permit holders comprise absentee propertyowners for whom the residence status is primarily used for access to the Schengen area.

Making the most of Latvia's human capital in the context of a declining population

Sustained economic growth requires tackling productivity challenges in the labour market

With a challenging demographic outlook, Latvia's future growth prospects rest on its ability to raise labour productivity and make the most of its available human resources. As in other transition economies, labour productivity in Latvia has increased, doubling between 2000 and 2013. But productivity gains slowed down significantly after a rapid increase prior to the crisis. Output per hour worked remains below OECD comparator countries in Eastern Europe, and some 50% below the OECD average.

Factors holding back productivity gains include a very sizable shadow economy, long-term joblessness, as well as a significant skills shortage and mismatch. Productivity is typically much lower in the informal sector, which is estimated to represent around a quarter of GDP. At 44.2% of the unemployed (Q4 2014), the share of long-term unemployment has remained stubbornly high after a temporary decline after 2012. At the same time, a significant share of youth (15.2% against and OECD average of 14%) are not in employment, education or training (NEET), and the lack of labour market opportunities for youth becomes more dramatic when considering that inactivity rates could be much higher without the unprecedented outmigration of the past decade.

In addition, the large cyclical swings in Latvia's labour market have stretched and probably overwhelmed the capacity of formal labour market institutions to facilitate smooth transitions into employment and promote the necessary reallocation of jobs towards higher-productivity sectors. A quick succession of labour shortages and high unemployment also makes workforce planning difficult for employers, and may reduce incentives to invest in productivity-enhancing training and workforce development.

Helping jobseekers find productive employment opportunities

Active labour market policies are a policy focus, but they remain under-resourced and participation is low

Participation in active labour market programmes (ALMPs) is low by international standards and Latvia spends only around 0.22% of GDP on employment services and related ALMPs. A very large part of ALMP funding (more than three quarters in 2014) has relied on external sources, notably the European Social Fund (ESF). Despite a significant increase

since 2007, programme participation among the unemployed is often much lower than in other European countries.

A new profiling system supports the State Employment Agency's (SEA) crucial task of assigning jobseekers to the most suitable programmes. But fiscal consolidation during the crisis resulted in substantial cuts of ALMP resources, especially in the area of employment services. As a result, caseloads/staff ratios have surged, reducing the SEA's capacity to devise and monitor effective activation strategies. Capacity constraints have also affected municipalities as the primary providers of social services, including for jobseekers.

Participation of youth in active programmes, such as short-term training programmes, has increased significantly since the introduction of the Youth Guarantee in 2014 as part of an EU-wide initiative. These trends are encouraging, but close monitoring is important to inform subsequent programme adjustments. As the Youth Guarantee is expensive, effective targeting and clear priorities are needed to maximise its positive impact.

Optimising service quality by fostering co-operation between institutions and levels of government

ALMPs and unemployment benefits are administered by the SEA and the Social Insurance State Agency, while social assistance and a large part of social services are the responsibility of municipalities. Cross-institutional co-ordination of employment-related support strategies is crucial for maximising administrative efficiency and achieving good outcomes for jobseekers.

The SEA's profiling system, accessible by both SEA and municipal welfare offices, contributes to effective information sharing. In addition, a national pilot project to improve inter-agency co-ordination was launched in 2013 with a specific focus on the long-term unemployed. But as in other countries, ensuring consistency across institutions with different objectives, political responsibility and budgeting procedures is not straightforward and remains a challenge. Co-ordination is currently not systematic and responsibilities appear not fully aligned with resources, especially in some financially weaker municipalities.

For youth, timely career consultations require better information exchange between labour market and educational institutions.

Towards a systematic link between programme results and funding decisions

Resources should be concentrated on programmes that are known to work well for the intended target groups, while spending on other ALMPs should be periodically reviewed, possibly by linking funding more closely to the results of proper evaluation exercises. While data collection and analysis have accompanied selected policy reforms and pilot projects, particularly when co-financed by the ESF, translating the results of these monitoring efforts into policy actions is frequently hampered by an absence of clear counterfactuals that are needed for a policy-relevant interpretation of measured programme effects.

Latvia has recently made considerable technical and legislative efforts to provide policymakers with high-quality and up-to-date information on programme participants, and to create the organisational and legal pre-requisites for combining information recorded by different institutions and levels of government. The resulting rich administrative data provide an excellent basis for continued policy learning based on systematic evaluations of both past and ongoing policy reforms. To realise its analytical potential, the government should match its commendable investments into data infrastructure with equivalent efforts to promote systematic use of available data sources for policy evaluations.

Aligning budget allocations with policy priorities and evidence

Direct job creation still accounts for nearly one-third of overall ALMP spending. The public works programmes under this heading served as crucial income safety nets during the crisis, as out-of-work benefit programmes were overwhelmed by the large inflow of unemployed: by 2012, jobseekers outnumbered benefit recipients by a factor of five. During the economic recovery phase, this objective is better met by improving the accessibility of unemployment benefits, for which coverage remains very low. However, organisational structures for public works programmes should be maintained to facilitate quick and temporary expansions if the need arises during future downturns.

Available evidence shows good results for occupational training programmes, providing a solid argument for extending these programmes by making them more accessible. A voucher system introduced in 2011 has already provided jobseekers with greater freedom of choice across programmes. But funding responsibilities for some marginal programmes – such as substantial state subsidies for summer jobs of 13- to 18-year-old students – which have a loose or unclear connection with concrete labour-market objectives should be shifted away from the ALMP budget to avoid diverting resources from more essential programmes.

Developing workers' skills at all stages of their career

Achieving upper secondary education for all students must remain a priority

The number of students has fallen dramatically over the past decade as a consequence of migration and low fertility rates. Ensuring that all young people obtain upper-secondary education is therefore crucial and additional efforts should be devoted to further reducing the incidence of early dropouts, especially among boys and in rural areas. Key challenges include better information sharing between schools, municipalities and employment services, more systematic follow-up with school leavers to help raise school completion rates and facilitate students' access to the labour market, and more options for "second-chance" education.

Participation in lifelong learning is low

Participation in formal training and re-training programmes among adult workers – lifelong learning – is below 5%, among the lowest in Europe, especially among older workers. Encouraging workers' participation in lifelong learning, and a constructive and facilitating role of employers, requires a shift in perceptions based on raising both the quality and the accessibility of training programmes. OECD work has identified a number of key components of such a strategy, including carefully tailoring available training programmes to employer needs and employee circumstances, and favouring real work activity and participatory learning methods over traditional classroom training.

Vocational education is undergoing reforms, but employer involvement is a key challenge

Vocational education and training (VET) is an essential part of a broader education strategy. A strategy of fundamental consolidation of the VET system was followed for a number of years, with a substantial reduction of the large number of different professions and specialisations that partly originated during the Soviet period. But the Latvian VET system has suffered from poor reputation and a weak connection with the labour market, and the share of students enrolling in VET programmes after basic education (approximately 35%) has remained fairly constant in recent years, despite the government's plans to increase it.

More recently, larger VET institutions have acquired the status of Vocational Education Competence Centres, serving a role as regional "hubs" with upgraded and modernised facilities. An ESF co-funded project to reform VET curricula and occupational standards led to the creation of 12 Sectoral Expert Councils (SECs), with co-operation between social partners, educational institutions and the government, and designed to facilitate adapting curricula to future skill needs. These reforms are promising even if it is still too early to assess their effectiveness. SECs should be further strengthened, in particular by encouraging active participation among employers, who have traditionally been reluctant to invest in workers' training.

Work-based learning and apprenticeships remain under-developed

Vocational education in Latvia is largely school-based and typically includes little company-based learning. Formal apprenticeships are not uncommon, but they are often too short (sometimes not longer than two weeks) for meaningful skills investments to take place. Latvian employers have appeared generally reluctant to embrace a more encompassing system of apprenticeships and company-based learning. Positive results from a recent pilot project involving work-based learning underline that Latvia would benefit from a more systematic approach and an institutionalised (and better regulated) system of apprenticeships. The main hurdles are related to the – necessary – requirements to enter into a formal contracts with the apprentice, to establish clear training obligations and, importantly, to pay the statutory minimum wage at the same rate as for all other employees in Latvia

One effective way of addressing these barriers would be to introduce specific employment contracts for apprentices with a lower minimum wage as in place in a number of EU countries (e.g., France, Germany, Portugal). However, more flexible wage provisions should remain firmly embedded in a well-regulated apprenticeship contract. For instance, simply extending the scope of internships, or allowing employers to pay "stipends" rather than wages governed by labour law could further weaken the bargaining power of workers, and would likely undermine the government's intensified efforts to reduce underreporting and ensure compliance with the labour law.

Carefully targeted financial incentives to promote apprenticeships could be used to promote work-based learning, especially for the large majority of small employers. They range from direct subsidies to tax rebates and reductions in social security charges. Such public support should be designed to stimulate necessary investments by employers, not substitute for them. Incentives would also require a suitable enforcement framework that can credibly prevent abuse.

Reducing labour market inequality

At 74.6%, overall labour force participation is high compared to the OECD average (71.2%). However, Latvia's labour market is highly heterogeneous, with very sizeable regional disparities and large minority groups who sometimes face specific labour market problems. In addition, there exists a marked age gradient of skill-related employment problems, for instance unemployment among workers aged 55 to 64 is 9.9%, nearly twice the OECD average. This pattern is partly driven by the very different work and education experiences of different cohorts that entered the labour market before and during Latvia's transition to a market economy.

The incidence of low-paid employment in Latvia is higher than in any OECD country. Skills premia have been very high for tertiary educated workers, especially during economic upswings, indicating both labour shortages and skills mismatch. Although wages of the top 20% fell substantially during the crisis, wage dispersion in the upper half of the pay spectrum also remains significantly above the OECD average. Latvia's overall earnings inequality is the highest among European OECD countries.

Ensuring fair wage agreements, in line with productivity

Volatile labour market conditions, informality and a low union coverage with no tradition of strong collective bargaining in the private sector weaken the bargaining power of lower-productivity workers in particular.

Weak worker representation and collective-agreement in the private sector

The Trade Union Confederation of Latvia (LBAS) has around 100 000 members - down from 275 000 in 1995 - and 20 industry-level affiliate trade unions. In 2015, only around 14% of Latvian workers belonged to a trade union and Latvia is among the European countries with the lowest incidence of official employee representation in establishments of all sizes. Employee representation at the workplace is either through unions or through elected workplace representatives. However, with low levels of union membership and reluctance among employees to elect workplace representatives, most private-sector workplaces have no employee representation at all.

Even though collective bargaining can take place at industry, regional and company/organisational level, collective agreements at industry level are rare and thresholds for extending collective agreements are relatively high (50% of employees in a given sector, or employer turnover of at least 60% of the entire sector). Extensions currently are in place only for three essentially public sectors: railway workers, teachers and health. Overall, only a 20% of salaried workers are covered by collective agreements. There is no reliable information on the use of collective agreements in the small and medium enterprise (SME) sector, which accounts for more than 99% of all enterprises.

The statutory minimum wage has a central role in the overall wagesetting process

Latvia has a unified statutory minimum wage. Unlike in many OECD countries, there is no differentiation by region or group of workers. Levels are reviewed every year by the National Tripartite Cooperation Council, a body with representatives of the government and the social partners. A recent OECD comparison shows 14% of formal-sector workers earning at or below the minimum wage, more than in any European OECD country. In the context of significant downward wage adjustments for other wage earners, the minimum has increased significantly since 2007 and Latvia is among the EU countries with the biggest increase in the minimum wage relative to the median.

In a labour market characterised by wide wage disparities, a generous minimum wage that applies across the board risks pricing first-time labour market entrants and other lower productivity workers out of formal employment, especially in the country's lowest-income regions. About one half of OECD countries with a statutory minimum wage set lower rates for teenagers. In Latvia, lower minima should be introduced for apprentices and labour market entrants with no or little work experience. But age-specific minimum wage provisions may need to go beyond lower minima for youth, as lower-productivity employment is also concentrated among some groups of older workers. By contrast, there are considerable practical difficulties of introducing any differentiation of minimum wages by region. These difficulties, combined with the large regional wage disparities in Latvia, underline the need to exercise great caution when deciding on across-the-board minimum-wage adjustments, in order to avoid negative employment effects in lagging regions.

An important step towards greater differentiation of wage floors would be to promote the role of social partners in the wage-setting process. Greater collective bargaining coverage and possibly greater use of sector-wide wage agreements, including sector-specific minima, would facilitate adjustments of wage floors that are in line with the labour market situation and productivity trends in each industry. However, the effectiveness of such collectively-agreed minima rests on constructive dialogue among the social partners, on the existence of adequate structures of representation, and on a sufficiently high share of employees covered by collective agreements.

Tackling informality requires careful co-ordination across ministries and government agencies

A share of employment activities operates outside the labour law or applicable tax provisions

While the size of the informal economy is very large, probably around a quarter of GDP, employment that is completely unregistered has been estimated at only 8% of the labour force. While informality cannot be measured with precision, this very large gap indicates that informality affects not only the labour market, and that informal employment largely takes the form of earnings under-reporting and underpayments.

New OECD estimates suggest that 17% of workers receive more than 50% of their total wages informally, in the form of "envelope wages". But misreported working hours (e.g. unpaid overtime or false part-time employment), and violations of applicable minimum-wage provisions are further channels of misreporting that result in underpayments for the worker.

The different forms of informal employment raise concerns about tax enforcement, but they have much broader implications for productivity, the functioning of labour markets and worker wellbeing. For instance, "false" part-time employment and underpayments of wages are particularly damaging for job quality and worker's incomes. Interventions to tackle informality and misreporting therefore require careful co-ordination across different government agencies and should be based on three main pillars: increasing the benefits of formal employment, reducing the costs of formalisation, and optimising tax and labour inspection enforcement methods

Recent reforms have strengthened enforcement and tightened sanctions for employers

The Labour Inspectorate works in close partnership with the State Revenue Service, exchanging information and co-ordinating actions. Staff resources of both agencies have been increased and considerable progress appears to have been made at tightening the enforcement of applicable labour and tax regulations. One key continuing challenge is credible enforcement in small firms. As small employers have low levels of trade union activity and worker representation, a credible role of the labour inspectorate may often be the sole channel for guaranteeing worker rights and labour standards.

To facilitate credible inspections, employers now must register new workers and their working hours electronically well before employment commences. Other reporting requirements were tightened as well and several recent initiatives aimed at addressing what is often described as the "cultural problem" of tax evasion. These include PR campaigns, the introduction of more severe fines for employers and the exclusion of offending employers from public procurement and some forms of state support. These efforts are welcome, and should be maintained and strengthened further.

But a lack of penalties for workers may contribute to maintain an accepting attitude towards informality

Unregistered employees, or workers whose employers underreport their earnings, face neither legal sanctions nor back payments of evaded taxes or social contributions. Although workers already suffer reduced social insurance coverage and entitlements as a result of underreporting, the lack of credible penalties for employees complicates the task of changing attitudes towards informality. For instance, half of Latvian workers who said in a survey that they carried out undeclared work stated that both parties benefit from such an arrangement. Since opportunities for employers and employees to collude do exist, balanced and credible legal consequences for both employers and workers should become part of the strategy to make misreporting and evasion less attractive and less socially acceptable.

It is, however, important to avoid stigmatising groups whose position in the labour market is already weak and who already suffer disadvantages resulting from underreporting. Fines and back payments for employees can and should be designed in a proportionate way and be targeted at all workers, including high-paid employees.

Concerns that fining employees may stop workers from reporting infringements by their employers are valid and should be considered carefully. But penalties and back payments could be introduced in such a way as to minimise these problems and even strengthen reporting incentives (e.g., by credibly announcing the imposition of fines or other penalties from a certain future reference date, together with amnesties for past infractions that are reported before then).

An overreliance on policy levers other than enforcement risks creating further labour market distortions

A number of regulatory hurdles are aimed at cutting off specific channels of misreporting. One prominent rationale for repeated significant minimum wage increases was that legal wage floors would make wage underreporting more difficult by forcing employers to report at least the statutory minimum, thus "reducing the size of the envelope". A continued

focus on minimum wages as an instrument to strengthen enforcement and tax revenues could, however, risk losing sight of the broader strengths and limitations of the legal minimum wage as a labour market policy tool. In particular, setting the minimum wage too high risks pricing low-skilled workers out of the formal economy altogether.

A minimum social contribution is a related measure that is currently under discussion. Under the proposal, social contribution liabilities would amount at least to those of a full-time minimum wage worker, regardless of actual hours worked. The measure is, in part, inspired by a similar provision that is in place in Estonia, and is designed to deal with hours underreporting. a practice that employers are thought to have used in response to minimumwage increases in order to contain labour costs. If it were adopted, the minimum contribution would make genuine part-time work (which is already low in Latvia) much more expensive and would risk pricing lowerproductivity workers, and those with a strong preference for part-time work, out of employment. It would also make it more costly for employers to respond to business fluctuations through legal means (a reduction in working time) and, like a hike in the minimum wage, might create incentives for entirely unregistered informal employment.

Latvia also has experience with targeted incentives to encourage formalisation of small business activities. In 2010, Latvia introduced simplified tax and contribution rules for firms with a total turnover below EUR 100 000 per year, so-called "micro-enterprises". The initiative yielded mixed results, however. First, insofar as micro-enterprises substitute for dependent employment in larger firms, the lower social contributions go hand in hand with significantly weaker social protection for the workers affected. Second, it is difficult to prevent abuse. For instance, larger firms often find ways to reorganise their activities into smaller units in order to make use of preferential tax provisions.

Tailoring policies to tackle labour market problems of specific groups

Women's labour force participation is high, but a significant gender wage gap persists

Labour force participation of Latvian women is approximately 72%, some 10 percentage points above the OECD average. But women are strongly over-represented among low-wage workers. A substantial gender pay gap (17%) remains when comparing wages of men and women with similar age, education levels and other characteristics, and earnings differences between men and women are especially sizeable in the informal sector. Encouraging women to move to higher-paid occupations in the formal sector is essential for improving family incomes and for furthering productivity growth in the economy as a whole.

Latvia's individual income-tax system is in principle well-placed to ensure that family tax burdens do not rise disproportionately when second earners, who are typically women, take up employment or move to a betterpaying job. Families may, however, lose entitlement to tax-free allowances that are available for dependents, including spouses with no or very low (declared) earnings. These tax-free allowances have become more generous, and could represent a significant disincentive for women to engage in formal work or earn more. To avoid such disincentives, the government has recently decided to abolish the dependents tax-free allowance for adults who are able to work. This is welcome as it helps to make work pay for families. The resulting budgetary savings could be invested into suitably targeted support measures for two-earner couples.

Many older workers found it difficult to adapt their skills to the evolving needs of the labour market

The economic restructuring and privatisation since the beginning of Latvia's transition to a market economy led to major employment shifts and increasing earnings stratification between generations. The younger and better-educated, sometimes termed the "winner generation", were better able to adapt to and drive the transition, while older generations (and those in economically less dynamic rural areas) were frequently left behind and suffered extremely high levels of unemployment.

The transition dynamics continue to shape labour market circumstances today. Working age individuals who are now aged around 45 years or older completed all their primary and secondary schooling in the Soviet system before independence, and also some or all of their early working careers or tertiary education. Older Latvian workers, who account for a growing share of Latvia's working age population, remain one of the two age groups with the largest proportions in the poorest 10% of the population (the other group is children).

To facilitate active participation of older workers, existing employment and income support schemes should be based more systematically on an expectation of longer working lives, and tailored more closely to the situation and needs of older workers. For instance, senior jobseekers should be offered specialised additional assistance by the SEA (possibly on the basis of a specific profiling process) and should be brought directly in contact with employers through measures such as job fairs and work trials. Given a high incidence of health problems among senior workers, parallel improvements of the disability assessment system, as currently planned by

the government, are also crucial, and should be prioritised. With the support of the European Union, the Ministry of Welfare is carrying out a comprehensive evidence-based assessment of the labour market challenges faced by older workers and identify suitable policy tools.

The labour market situation of national minorities remains a legitimate concern for policy

Employment rates are lower among national minorities than among ethnic Latvians, and the incidence of unemployment and long-term joblessness is higher. National minorities were also less likely to benefit from the labour market recovery that began in 2010. The relative labour market disadvantages of minorities are, in part, a result of differences in age and education levels compared with the rest of the population. But closer analysis shows that they persist after accounting for these differences (by "controlling" for the most relevant characteristics in the statistical analysis). As in many OECD countries, this indicates that belonging to a minority remains a significant driver of poorer employment outcomes in Latvia and, hence, a concern for labour market policy.

Workers from national minorities also tend to earn less than the rest of the population in the same regions with similar jobs, education, age, experience and a wide range of other characteristics. The gap is wider for non-citizen workers, who earn some 10% less than otherwise similar ethnic Latvians, while the gap is 7.4% for national minority groups with citizenship. Earnings gaps are smaller than in Estonia, which has similar minority groups. But, contrary to expectations, earnings gaps affecting national minorities in Latvia do not appear to decline among younger generations, despite linguistic abilities likely being less of a barrier for the more recently educated cohorts.

A range of factors contribute to above-average employment difficulties of minority groups, in addition to differences in age, education or region of residence. Some groups of national minorities face formal restrictions for certain types of employment. Non-citizens are barred from holding a range of public-sector jobs and some private-sector occupations. In addition, there are possible employment barriers related to insufficient proficiency of the Latvian language, even if the latter should become less of a constraint as language gaps are shrinking.

As in virtually all OECD countries, Latvia has established laws to combat discrimination on both gender and ethnic grounds. Nonetheless, enforcement of these regulations is essentially based on workers' willingness and ability to claim their rights. The probability of detecting infringements of relevant provisions is likely linked to any broader enforcement issues of applicable labour law and the extent of informality. For national minorities as for other relevant groups, raising public awareness of existing legal safeguards, and strengthening incentives for victims to lodge complaints should be among the pillars of Latvia's policy strategy in this area

Making social protection a key policy priority

Major reforms to social protection policies in the 1990s successfully addressed the pressing fiscal challenges arising from a relatively generous social protection system in the context of the large income and employment losses that accompanied the transition to a market economy. The reforms also aimed to strengthen work and reporting incentives by introducing strong links between earnings histories and support entitlements, removing the strongly redistributive elements that were a defining feature of social protection during the Soviet era.

Government programmes do little to alleviate inequality

Together, government taxes and transfers in Latvia do comparatively little to make incomes less unequal. Inequalities of market incomes in Latvia are similar to Finland or Germany, but with limited redistribution, the distribution of disposable incomes (after taxes and public transfers) is more unequal than in the large majority of OECD countries. Public perception echoes the limited effectiveness of government policies in this area. Latvians consistently report very low levels of satisfaction with the way in which inequalities and poverty are addressed, highlighting the need for sustaining reforms efforts in this area.

Today, social protection in Latvia is largely built on social insurance principles, both on the financing side, and as a central entitlement criterion for those claiming support. But coverage is very limited for some groups and benefits. For instance, the number of unemployment benefit recipients was less than half the number of jobseekers before the crisis, and by 2012 only around one in of every five jobseekers received unemployment benefits

Social insurance programmes are complemented by a State Social Security benefit which can act as a benefit floor for some groups, by universal family transfers, and by modest and locally funded means-tested cash social assistance (Guaranteed minimum income, GMI) and housing benefits with very strict income limits. Partly as a result of the strict income limits, a majority of income-poor or materially deprived individuals do not receive support from any of the main income replacement benefits.

Ensuring an adequate resource base for social protection

Social spending is low

At just over 16% of GDP, public social spending in Latvia is well below the OECD average of 21%. Spending on old-age pensions and survivor benefits is similar to the average OECD country, but expenditures in all other categories are markedly lower. In 2012, when household incomes were still near their post-recession low, cash transfers to working age individuals and their children stood at roughly three quarters of the OECD country average. The resource gap is biggest, however, in the services category. Relative to GDP, spending in this category, which also includes health, was slightly above Mexico's and lower than in any high-income OECD country. Expenditures on social services other than health (including housing, social work, childcare and ALMPs) are less than half the OECD average.

Social protection as a central element in inequality-alleviation strategies

The government's longer-term policy documents, such as the National Development Plan 2014-2020, highlight tackling inequality, increasing employment and reducing labour tax burdens as broad priorities. Recent government budgets have increased some social protection funding relative to earlier years (e.g., funds for supporting families with children).

These individual measures are welcome. But the budget planning process currently does not appear to fully account for revenue requirements of ongoing major social security reforms, such as an ambitious, but necessary, GMI reform recently developed and proposed by the Ministry of Welfare. Likewise, the impact of revenue-side measures on inequality and on social budgets is not systematically assessed or spelled out.

Strong reliance on contribution-based financing creates specific challenges

The current financing mix suggests that bringing social spending closer to the OECD average will remain difficult. Despite still-depressed wage incomes in 2012, social insurance contribution on wages accounted for 61% of all social protection financing, the fifth-highest share in the EU27.

The strong reliance on contribution-based financing creates challenges that are specific to Latvia's socio-economic context. A contracting labour force, a large share of low-wage earners, and considerable wageunderreporting make it difficult to maintain adequate revenues, while keeping contribution burdens on labour incomes at acceptable levels. The total social contribution rate is currently 34.09% of gross earnings. With a flat income tax schedule, the resulting overall tax wedge is high in international comparison, especially for low-wage workers. A "thin" middle class means that this group cannot generate as much revenue as in other countries. And Latvia's volatile economy increases risks of long-lasting income shocks hitting large parts of the population. This makes risk pooling and diversification more difficult and weakens the effectiveness of a largely contribution-based welfare state.

Strengthening redistribution

Earnings-related social insurance provisions are well-suited for smoothing individual risks when career interruptions are relatively short and infrequent. But Latvia's structurally high inequality has strengthened the case for bolstering redistribution across income groups, and for making employment-oriented social support more broadly accessible for those with no or limited contribution histories. Volatile economic growth and periods of substantial long-term unemployment further underline the role of needsbased assistance benefits and associated services as essential complements to contribution-based social provisions.

Overall, under 3% of transfer spending is devoted to programmes that are largely means-tested. Latvia's policy configuration is unusual in this respect, as with comparatively low spending levels, effective targeting is crucial to make the most of available resources. OECD countries with equally low spending make much more use of income targeting.

A close link between entitlements and incomes requires reliable income information and therefore hinges on the government's progress in tackling informality and envelope wages. However, targeting does not need to rely exclusively on income-testing but can use other indicators of need, such as family size or willingness to actively participate in job search measures.

Reinforcing targeted safety nets

Spending on the Family State Benefit is about twice as high as for the main GMI benefit and tighter targeting, e.g., by phasing out benefits for families with above-average incomes, would create additional fiscal space for channelling support to children in low-income households and at risk of poverty. The decision to boost family benefits for larger families, by increasing benefit amounts for second, third and further children, starting in 2015, is welcome as these larger families who are overrepresented among low-income groups.

The government has taken steps to reinforce means-tested minimumincome (GMI) benefits and to make them more accessible. The Ministry of Welfare's ongoing reforms of minimum-income benefits and raising unemployment benefit and pension floors are particularly welcome. But they remain incomplete and mainly focussed on benefit levels, and less on the more difficult but crucial issues of ensuring equality of access, financing the proposed benefit increases, further integrating income support with employment and rehabilitation services, and improving governance and co-ordination between state and local institutions. In addition, medium-term budget planning does not fully account for this strategic social protection priority, creating risks that the reform may be scaled back or delayed. Overall, efforts to reform and strengthen income safety nets should be stepped up, including agreements with municipalities on the crucial cofinancing arrangements to fund the reform.

To reduce the strain on minimum-income benefit provisions, the government should consider ways to make unemployment benefits more accessible. They are the most suitable type of support for jobseekers, and a powerful gateway to job search assistance and related employment support. Given the current low coverage rates, last-resort benefits cannot provide adequate income support for all unemployed who do not have access to unemployment benefits. Reform of the unemployment benefit system could include a combination of longer benefit durations with benefit levels that fall over time, or a possible introduction of a means-tested unemployment assistance for those who are not, or no longer, entitled to insurance benefits.

The income tax system could play a bigger role in tackling inequality

Latvia taxes income at a single flat rate of 23% and income taxes are currently one of the least progressive in Europe and the OECD. A tax-free allowance that declines at higher income levels, as recently announced by the government, would make tax concessions more targeted and income taxes more progressive at a lower revenue cost. The scope of these measures could usefully be extended to other groups, however; notably to pensioners. The 2016 budget also includes provisions for a "solidarity tax" for high-income earners. This is welcome and would essentially undo the regressive effect of the ceiling on social contributions.

Monitoring the effects of public policies on inequality

Latvia already undertakes evaluations of the distributional impact of individual policy measures. But systematic incidence encompassing the entire fiscal system are missing. In view of Latvia's high inequality, they should be made routinely when developing and preparing major fiscal reforms on both the spending and the revenue sides. Currently, the absence of inequality impact assessments from key strategic documents, such as the 2015 Inclusive Employment Strategy, weakens the government's ability to monitor progress towards the explicit policy objectives of reducing inequality and making growth more inclusive.

Social protection needs to be crisis-proof

For social protection to strengthen economic security it needs to be able to respond to recessions. Much of Latvia's social spending has been pro-cyclical, possibly exacerbating rather than dampening the instability of family incomes. For instance, even though employment fell much more than in most comparator countries, spending on working age support barely increased in the four years after the economy peaked.

Latvia's modest income safety nets were left severely over-stretched by the enormous need for well-targeted support during the recent deep downturn. The government swiftly implemented an emergency public works programme and started to co-finance safety net benefits administered by local governments to make last-resort income transfers more accessible to Latvians in the poorer parts of the country. These temporary emergency programmes provided vital and timely income support. But the sharp expenditure reductions enacted as part of a dramatic fiscal consolidation programme, meant that reforms undertaken in immediate response to the crisis were not – and arguably could not be – designed to fill structural gaps in the social protection system.

A carefully targeted social support system makes social protection more crisis-proof, both by facilitating the build-up of fiscal reserves during upswings, and by strengthening automatic stabilisers during future recessions. Approaches in OECD countries offer pointers as to how policies in Latvia could be made more responsive to changing economic conditions and to household needs. For instance, Ireland's out-of-work benefits are well targeted and were allowed to operate to the full extent by keeping them accessible to a rapidly growing number of jobseekers.

Preventing old-age poverty

Low birthrates, ageing and emigration trends have been the principal drivers of pension reforms in Latvia and other Baltic countries since the 1990s. Latvia's far-reaching reforms to maintain the financial sustainability of pension promises transferred longevity, labour market and capital market risks from social insurance and state budgets to individual members. In 1996, it was one of the first countries in Europe to start introducing a multipillar system consisting of a mandatory notional defined contribution (NDC) public "1st pillar" that is financed on a pay-as-you-go (PAYG) basis, a

mandatory defined contribution (DC) "2nd pillar", and a voluntary privatepension "3rd pillar".

Pension levels and public spending on old-age pensions are low in international comparison and are projected to fall further in the medium term. Based on current policy parameters, future public pension expenditures are estimated to fall from 7.7% of GDP in 2013 to 4.6% in 2060. The minimum contribution requirement under the 1st pillar is 15 years. rising to 20 years in 2025. A modest minimum pension is available to retirees with short contribution histories or low NDC entitlements. The current legal retirement age is 62.5 years for both men and women, rising in annual steps to 65 years by 2025.

Although the system is fiscally sound on a technical level, the risks of significant income gaps for future retirees create uncertainty about its social sustainability. In the medium term, this uncertainty also translates into potential risks for fiscal sustainability, as increasing numbers of pensioners can add to political pressures for ad-hoc changes and for additional expenditures beyond those currently projected. To reduce these risks, a comprehensive review should systematically assess the effectiveness and adequacy of current pension provisions in the context of Latvia's expected demographic trends and labour market developments.

Closing the pension gap

Future pension entitlements in the unfunded 1st pillar will be markedly lower than today, with average (gross) replacement rates in the earningsrelated public pension projected to halve from 38% in 2015 to 19% by 2060. The drop is in part a result of the increasing life expectancy at retirement, which will result in lower annuities for future retirees. Future replacement rates in the 1st-pillar notional defined contribution (NDC) system will be low even for those retiring on a full career (36% by 2059, against an OECD average of 53%).

Low projected replacement rates in the 1st-pillar scheme affect future retirees at all earnings levels, leaving a sizeable income gap to be filled by the 2nd and 3rd pillars. Membership in the mandatory 2nd-pillar DC scheme has indeed expanded strongly. But projected future pay-outs fall well short of the spending reductions in the public pension scheme. With unchanged policies, any remaining gaps would have to be primarily filled by substantial expansions of the voluntary 3rd pillar private pension, or through significant additional public expenditures outside the state social insurance system.

Maintaining incentives to build up pensions capital

Recent economic and policy developments since the onset of the financial crisis suggest that closing the pension gap will remain a significant challenge. For instance, the difficulties of financing ongoing pension benefits in the 1st-pillar scheme with a much smaller number of contributors during the crisis led the government to effectively channel mandatory contributions away from the 2nd pillar. As a result, the retirement capital of workers accrued at a much lower rate than initially planned. The volatility of contribution rates also made it more difficult for members to anticipate future retirement savings and may have contributed to the erosion of confidence in the overall pension system.

The government recognises the need to bolster income provisions for the lowest-income pensioners in particular, including through raising minimumpension levels. But even with the very low current minimum pensions, minimum pensioners already accounted for 13.6% of new pension claims in 2014 (up from 4% in 1996). A further large increase in the number of retirees qualifying for minimum pensions or broader means-tested safety nets would undermine the earnings link of the Latvian pension system, and possibly the incentives to contribute to it.

Introducing or strengthening redistributive elements that maintain incentives for building up pension capital would be more in line with the system's internal logic and could relieve pressures on minimum-pension claims. This could include measures to make the pension formula more progressive for those with entitlements above the minimum pension. Increasing minimum-pension provisions with age, say at age 70 or 75, could be another option for alleviating old-age poverty while maintaining incentives to contribute during working age.

Box 0.1. Summary of recommendations for Latvia

In the context of enhancing job opportunities and wellbeing for all, the Latvian Government is invited to consider the following items as part of its strategy to tackle the demographic challenge, reduce inequality in the labour market, strengthen productivity, and further develop inclusive and active social policies. Some suggested policy reforms imply a rise in public social spending and will require improvement in tax policy and tax enforcement or a shift in the composition of government spending towards labour market and social policies.

Managing emigration and a shrinking population

- More efforts should be made to ensure Latvians abroad, especially Latvian graduates abroad, remain informed about job opportunities in Latvia, both through more active listing of vacancies, and the development of a platform for registering the profiles and contacts of Latvians abroad.
- Longer-term measures to maintain contact with the diaspora should be reinforced and expanded, including youth summer programmes and outreach to foreign spouses and partners. A more strategic sector approach to diaspora entrepreneurs should be taken.
- Labour migrants should be actively targeted to help address projected skills shortages, including through outreach activities to non-EU nationals by the State Employment Agency. Occupational language requirements for initial visas should be examined in light of sector shortages and priority areas. Policy discourse should contribute to a favourable climate for international recruitment.
- Retention of foreign talents in Latvia should be improved. The Latvian language education infrastructure should be used to improve opportunities for labour migrants to learn the language and stay. Provisions to encourage international graduates to remain in Latvia should be implemented.
- The investor programmes should be evaluated with a view to shifting the target towards investors in productive businesses, favour resident investors, and ensure that real estate thresholds are appropriate. Language requirements for foreign investors could be eliminated to ensure that this is not an obstacle, and to signal openness to businesses serving foreign markets.

Supporting jobseekers into productive employment

The resource base for active labour market policies should be strengthened. While continued access to co-funding from the European Social Fund is essential, core services, routine programme evaluation and monitoring should be financed through adequate allocations from the state budget. Funding levels should be made responsive to labour market conditions, e.g., by considering a suitable automatic link between unemployment levels and resource allocations.

Box 0.1. Summary of recommendations for Latvia (cont.)

- Co-ordination between the State Employment Agency (SEA), social service providers and educational institutions should be enhanced to maximise administrative efficiency, help social assistance recipients attain productive employment, and facilitate school-to-work transitions. The distribution of resources for integration and employment-support programs to SEA and municipal welfare offices should be closely aligned with their de-facto responsibilities. To better articulate incentives for formal work, means-tested income transfers should be withdrawn gradually as family incomes increase when benefit recipients start to work.
- Resource allocations for active labour market programmes should be linked more closely with their performance, through more systematic programme evaluation and monitoring, and by making greater analytical use of existing rich administrative data.

Developing workers' skills

- A modern system of apprenticeships should be promoted by introducing employment
 contracts for apprentices that are tailored to the needs of students and employers. Such
 contracts should provide for the possibility of paying wages below the regular
 minimum wage, enable and encourage effective on-the-job training, and ensure that
 apprentices are suitably protected by safeguards as defined in labour law.
- The government could consider specific and carefully targeted financial incentives
 to promote work-based learning, especially among smaller employers. Such public
 support should be designed to stimulate necessary investments by employers, not
 substitute for them. Pooling of apprenticeships, whereby firms can share
 apprenticeship places, could be considered.

Addressing labour market inequality and informality

- The suitability of a single minimum wage for all workers should be reconsidered in the light of the employment barriers of different groups, notably youth, older workers and labour market entrants. Maintaining employability in the formal sector should be a primary consideration when deciding on minimum-wage adjustments.
- Efforts to strengthen enforcement of labour law and tax provisions should be redoubled, building on the experiences with recent policy initiatives. The language requirements for a wide range of occupations, and the enforcement of such provisions, should be assessed against possible consequences of discouraging formal work among individuals with sub-threshold language skills.
- Reducing the high labour tax wedge on low-paid formal workers resulting from substantial social contribution burdens at low wage levels remains a priority. However, effective measures to strengthen progressivity through targeted tax-wedge reductions will require significant progress in tackling informality and under-reporting.

Box 0.1. Summary of recommendations for Latvia (cont.)

- Financial penalties for employees receiving unreported employment income should be considered as part of a sustained strategy to tackle informality and "envelope wages". Any such penalties need to be proportionate, however, and can be combined with amnesties to encourage the reporting of past infringements. The policy discourse should highlight informality as a national issue while being careful to avoid stigmatising specific groups of workers.
- The proposed minimum social contribution, which aims at reducing underreporting of working hours, should be avoided as it would make genuine part-time work much more costly and would be potentially complex to administer.

Making social protection a key policy priority

- Efforts to reform and strengthen the main income safety nets, notably the guaranteed minimum income, should be stepped up, including by working towards a sustainable co-financing arrangement between central and local governments to fund the reform and ensure equality of access across regions. Income safety nets should be further integrated with employment and rehabilitation services.
- Coverage of unemployment benefits should be improved, e.g., by combining longer benefit durations with benefit levels that decline over the unemployment spell, or by considering a form of means-tested unemployment assistance benefit for jobseekers who are not, or no longer, entitled to unemployment insurance.
- Systematic incidence analyses encompassing the entire fiscal system should be made more routinely when developing and preparing major fiscal reforms on both the spending and the revenue sides. Currently, the absence of comprehensive inequality impact assessments from key strategic documents is not consistent with the government's policy objectives of reducing inequality.
- Concrete policy options should be developed to strengthen redistributive elements in the pensions system, while maintaining incentives for building up pension capital. This could include measures to make the pension formula more progressive for those with entitlements above minimum-pension levels, or increasing minimumpension provisions with age (e.g., at age 70 or 75). To inform policy efforts in this area, a comprehensive review should analyse the consequences of the expected old-age pensions gap for poverty and income adequacy during old age.



From:

OECD Reviews of Labour Market and Social Policies: Latvia 2016

Access the complete publication at:

https://doi.org/10.1787/9789264250505-en

Please cite this chapter as:

OECD (2016), "Assessment and recommendations", in *OECD Reviews of Labour Market and Social Policies: Latvia 2016*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/9789264250505-4-en

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to rights@oecd.org. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at info@copyright.com or the Centre français d'exploitation du droit de copie (CFC) at contact@cfcopies.com.

