This chapter analyses the economic returns of levelling the playing field for LGBTI+ Americans. It first explores the potential increase in GDP that could result from closing unexplained LGBTI+ labour market gaps, drawing on the OECD long-term model, before discussing several additional benefits that would emerge from eliminating anti-LGBTI+ discrimination. The chapter concludes by quantifying the economic and well-being burden of mental health disparities among LGBTI+ individuals. Considering only the mechanisms included in the OECD long term model, the economic consequences of achieving LGBTI+ equality appear substantial. Under realistic assumptions, if the United States reaches this milestone by 2050, it could expect an increase in GDP equal to 2.6% of the baseline GDP. This corresponds to a yearly increase in GDP equal to 0.1%, which amounts to 5% of the average annual US GDP growth over the past ten years. Of course, a more ambitious goal of closing the gaps by 2030 would lead to a higher yearly GDP increase, representing about 10% of the average annual US GDP growth observed between 2013 and 2023.

### 4.1. Introduction and main findings

LGBTI+ inclusion is a question of human rights, but it also makes a lot of economic sense. Ending discrimination against LGBTI+ Americans and creating inclusive environments and opportunities in and outside the labour market not only means that LGBTI+ Americans can get their fair share, but also that there are more goods and services being produced in the economy, and more income to spend and to save or invest, thus benefiting all of society. The lack of a strong evidence-based economic case for LGBTI+ inclusion is a barrier to further progressing in social acceptance of LGBTI+ individuals, and thus to expanding legal and lived equality for this population (OECD, 2020[1]): informing people, companies, and policy makers about the economic gains of LGBTI+ inclusion increases their support for LGBTI+ equality, including in countries where anti-LGBTI+ prejudice is widespread (Aksoy et al., 2022[2]).

This chapter aims to fill the gap by providing an evaluation of some of the economic returns of levelling the playing field for LGBTI+ individuals in the United States. It begins by exploring the potential increase in GDP that could result from closing LGBTI+ labour market gaps, drawing on the OECD long-term model. It then contextualises these figures by discussing several additional benefits that are not captured by this model but that could emerge from eliminating anti-LGBTI+ discrimination. The chapter concludes by quantifying the economic and well-being burden of mental health disparities among LGBTI+ individuals.

### **Main findings**

- Anti-LGBTI+ discrimination prevents LGBTI+ individuals from reaching their full employment and labour productivity potential.
  - It raises barriers to their hiring and tends to confine them, when they are employed, to lowerskilled positions than they would otherwise be able to occupy.
  - These detrimental consequences of discrimination might be amplified by negative feedback effects from the labour supply to the extent that reduced labour market prospects undermine incentives to participate in the labour force as well as productivity at work.
  - These harmful repercussions on LGBTI+ individuals' labour supply and productivity are further compounded by anti-LGBTI+ discrimination (in and outside the labour market) undermining the health of LGBTI+ individuals.
- Closing LGBTI+ labour market gaps will substantially increase US GDP.
  - By projecting GDP up to 2060, the OECD long-term model offers a framework to quantify the additional GDP, compared to a baseline, that could result from gradually bridging the unexplained gaps in employment and labour productivity for LGBTI+ individuals, along different time horizons. This dynamic model thus helps to strengthen the economic case for LGBTI+ equality with realistic projections, acknowledging that achieving LGBTI+ equality is not an overnight process but one that requires gradual change.
  - Two different baseline scenarios are considered.
    - A sex- and cohort- blind approach: This approach is considered naïve as it fails to account for variations in both the share of self-identified LGBTI+ individuals and their unexplained labour market disparities across different sexes and cohorts. It assumes that the 2024 figures for each sex and age group are equal to their average in the total working-age population, maintaining these averages static through 2060.
    - A cohort approach: In contrast, this approach is deemed realistic as it recognises that both the share of self-identified LGBTI+ individuals and the extent of their labour market disparities differ by sex and cohort. It assumes that the 2024 figures for each sex and

age group are equal to the averages observed within each of these groups, with these averages remaining unchanged as the groups age.

- The economic benefits of achieving LGBTI+ equality are projected to be higher under the realistic method (cohort approach). This stems from the fact that younger generations not only have a higher proportion of self-identified LGBTI+ individuals but also face greater labour market disparities – likely due to a reduced incidence of non-disclosure bias compared to older generations. Consequently, the cohort approach generates an increase in both the proportion of self-identified LGBTI+ individuals and the extent of their labour market disparities within the total population.
- Specifically, should the United States achieve LGBTI+ equality by either 2030, 2040 or 2050 (meaning that the employment and labour productivity of LGBTI+ adults converge linearly with those of their cisgender straight peers by these target years), it could expect an increase in GDP ranging from 1.5% (sex- and cohort-blind approach) to 1.6% (cohort approach) of the baseline GDP by 2030 if LGBTI+ equality is achieved by 2030, from 1.5% to 2.1% of the baseline GDP by 2040 if LGBTI+ equality is achieved by 2040, and from 1.5% to 2.6% of the baseline GDP if LGBTI+ equality is achieved by 2050.
- Attaining LGBTI+ equality by 2030 would result in an average annual increase in GDP of approximately 0.2% under the two approaches, which amounts to 10% of the average annual US GDP growth observed between 2013 and 2023. However, delaying the achievement of LGBTI+ equality would yield reduced economic benefits when translated in yearly GDP gains. The average annual increase in GDP ranges between 0.09% and 0.13% if the target year is 2040, and between 0.06% and 0.10% if the target year is 2050.
- The OECD long-term model can also be used in a static capacity to estimate the cost of not closing employment and labour productivity penalties faced by LGBTI+ individuals or, conversely, the gain associated with closing those gaps immediately. When used in this way, it reveals that instantaneously achieving LGBTI+ equality results in a GDP gain equivalent to approximately 1% of the baseline GDP, irrespective of the baseline scenario considered.
- There are many more benefits from LGBTI+ equality than just the economic gains derived from the OECD long-term model.
  - For instance, LGBTI+ equality will improve public finances through increased tax revenues and reduced public expenditures. An uptick in production and labour earnings enhances public revenues from corporation tax, income tax, and social security contributions. These positive effects might be further magnified by increased consumption tax revenue, as LGBTI+ individuals spend more on consumer goods and services than their cisgender straight peers. Moreover, eradicating anti-LGBTI+ discrimination is conducive to reduced public expenditures, as greater workforce participation reduces the need for unemployment benefits, active labour market policies, and social transfers. Greater LGBTI+ equality is also anticipated to reduce public health expenditures, as stigma is a significant driver contributing to the poorer mental, behavioural, and physical health of LGBTI+ individuals.
  - Beyond bolstering tax revenues and reducing public expenditures, eliminating anti-LGBTI+ discrimination might bring significant economic benefits through various additional channels, such as the potential to tap into a diversity and gender equality dividend.
- Removing the economic and well-being burden of mental health disparities for LGBTI+ Americans will give benefits equivalent to a significant share of GDP.
  - The burden faced by LGBTI+ individuals due to their disproportionate health challenges can be thought of as comprising three main components: i) the reduction in market income

(which is only partly accounted for in the growth model); ii) the reduction in longevity; and iii) the reduction in psychological well-being, often labelled as "pain and suffering".

- It is possible to convert the mental health-related burdens of LGBTI+ individuals into a loss that can then be expressed as a percentage of GDP. This is done by multiplying the average number of disability-adjusted life years (DALYs) in the total population attached to mental health issues faced by LGBTI+ individuals by one time GDP per capita (lower bound representing the direct economic impact) to three times GDP per capita (upper bound reflecting the broader value of health beyond earning capacity).
- Applying this methodology to the case of anxiety and depression indicates that removing the related economic and well-being burdens for LGBTI+ individuals will represent in 2024 a benefit equivalent to a share of USD GDP ranging from 0.04% (lower bound) to 0.12% (upper bound), or an amount varying between USD 11.2 billion and USD 33.6 billion.

#### 4.2. Closing unexplained LGBTI+ labour market gaps will increase GDP

Unequal labour market success for LGBTI+ adults not only contradicts the moral imperative of equality in society, but it also entails significant economic costs by preventing LGBTI+ adults from realising their full productive potential, as shown in the previous chapters. In particular, employment discrimination against LGBTI+ workers leads to an underutilisation of existing human capital and to a misallocation of talents as LGBTI+ individuals are passed over in hiring and in career advancement. As a result, some LGBTI+ workers end up unemployed or in lower-skilled positions than they would otherwise be able to occupy. These detrimental consequences of discrimination might be amplified by negative feedback effects from the labour supply to the extent that reduced labour market prospects undermine incentives to participate in the labour force and productivity at work. These harmful repercussions on LGBTI+ individuals' labour supply and productivity are further compounded by anti-LGBTI+ discrimination (in and outside the labour market) undermining the health of LGBTI+ individuals.

To evaluate the economic benefits of discontinuing these mechanisms, this section relies on the OECD long-term model (Guillemette and Turner, 2021<sub>[3]</sub>; Guillemette and Turner, 2018<sub>[4]</sub>). It begins by succinctly explaining how the model works, before outlining the features of the baseline scenario used to predict GDP. Subsequently, the section presents estimates of the average annual extra GDP that result from departing from the baseline, by closing unexplained labour market gaps between LGBTI+ and their cisgender straight peers. The section concludes with an examination of prior attempts to quantify the economic costs associated with anti-LGBTI+ discrimination.

#### 4.2.1. The OECD long-term model

The OECD long-term model is a tool employed by the OECD not only to project GDP trends up to 2060 for its member countries but also to quantify the economic returns of greater inclusion of marginalised groups. The model has already been used by the OECD on two notable occasions: first, to assess the benefits of enhanced labour market participation among older individuals across various OECD countries (OECD, 2020[5]), and second, to analyse the economic gains from achieving gender equality in the labour market (OECD, 2023[6]; OECD, 2022[7])

In this model, economic output Y in a given year t is measured based on a Cobb-Douglas production function. This production function has the advantage of presenting a great deal of realism as it is consistent with three economic stylised facts, i.e. patterns that hold true in various economies and times (see Box 2.6 for an overview).

126 |

More precisely, the Cobb-Douglas production function on which the OECD long-term model is grounded features three main factors: physical capital stock ( $K_t$ ), total employment – or, equivalently, total number of workers – denoted by N<sub>t</sub>, and labour productivity per worker (A<sub>t</sub>). Specifically, we adapt the model to categorise the population of workers into two groups: cisgender straight individuals (CS) and LGBTI+ individuals. In alignment with the initial version of the model, we further divide each of these groups by sex assigned at birth (AMAB or AFAB) and by age group, which includes young (15-34), prime age (35-54), and mature (55-74) individuals.

Against this backdrop, GDP in year t is given by:

$$Y_t = K_t^{\frac{1}{3}} [A_t^{CS} * N_t^{CS} + A_t^{LGBTI+} * N_t^{LGBTI+}]^{\frac{2}{3}},$$

where  $A_t^{CS}$  and  $N_t^{CS}$  is the productivity per worker and the number of workers within the cisgender straight population, while  $A_t^{LGBTI+}$  and  $N_t^{LGBTI+}$  is the productivity per worker and the number of workers within the LGBTI+ population.<sup>1</sup>

### Box 4.1. The Cobb-Douglas production function has the advantage of reflecting three economic stylised facts

The OECD long-term model is grounded in a standard Cobb-Douglas production function featuring physical capital stock (K), total employment of adults aged 15-74 (N), and total factor productivity (TFP)<sup>1</sup>. Specifically, real GDP is given by:

$$Y = F(K, N) = TFP * K^{\frac{1}{3}} * N^{\frac{2}{3}}.$$

The Cobb-Douglas production function is consistent with three economic patterns that hold true in most economies and times:

- Constant returns to scale, which imply that F(λK, λN) = λ F(K, N), where λ > 0. In other words, multiplying each input by a positive factor yields an increase of the total output by the same factor.
- Diminishing marginal product of capital stock and total employment, which implies that both the second derivative of *F*(*K*, *N*) with respect to K and the second derivative of *F*(*K*, *N*) with respect to N is negative. In other words, if we keep adding units of one of the two inputs (holding the other input constant), the quantity of additional output that each new unit of input produces will be smaller than that added by the previous unit of input.
- The share of the total output Y that is paid out as rents to holders of physical capital is equal to 1/3 on average, with most countries, should they be rich or poor, having physical capital shares lying fairly near this average. Conversely, the share of the total output Y that is paid out as wages to workers is equal to 2/3 on average. To the extent that, under perfect competition, inputs are paid at their marginal productivity, this stylised fact implies that:

$$(MPK^*K)/Y = \frac{1}{3} and (MPN^*N)/Y = \frac{2}{3}$$

where MPK stands for the marginal productivity of capital and MPN stands for the marginal productivity of employment.

The Cobb-Douglas production function satisfies these last two conditions.

Note:

<sup>1.</sup> In the OECD long term model, total factor productivity is entirely driven by labour productivity per worker through the following relationship: TFP=A<sup>2/3</sup> (Guillemette et al., 2017<sub>[8]</sub>).

## 4.2.2. The baseline scenarios: no progress towards greater inclusion of LGBTI+ individuals

The key assumption in the baseline scenarios is the absence of a reduction in unexplained labour market gaps between LGBTI+ individuals and their cisgender straight peers. This assumption indicates a stagnation in the progress towards greater inclusion of LGBTI+ individuals.

The OECD long-term model offers a framework to quantify the additional GDP, compared to a baseline, that could result from bridging the unexplained gaps in employment and labour productivity for LGBTI+ individuals. The underlying assumption is that anti-LGBTI+ discrimination prevents them from reaching their full employment and labour productivity potential.

Specifically, the baseline scenarios are grounded in a set of long-run projections that pertain to key model parameters, namely total employment, labour productivity per worker, and capital stock (Guillemette and Turner,  $2021_{[3]}$ ). The projections for total employment ( $N_t$ ) are influenced by trends in the size and sex/age composition of the working-age population, according to United Nations population projections. They are also shaped by trends in employment rates across different sex/age groups, with a cohort approach applied to cyclically adjusted historical employment rates. Beyond these standard dynamics, which are integral to the initial version of the OECD long-term model, we introduce an innovation. We differentiate between total employment for cisgender straight adults and LGBTI+ adults, possibly further breaking down the data by sex and age group. This differentiation is based on the proportion of self-identified LGBTI+ adults within the total population, as well as on the demographic-adjusted employment disparities between LGBTI+ individuals and their cisgender straight peers. The results associated with these two dimensions are summarised in columns 1 and 2 of Table 4.1, based on the analysis performed in Chapters 2 and 3.

Regarding the projections for labour productivity per worker (At), we refine the initial version of the OECD long-term model by disaggregating labour productivity by LGBTI+ status, possibly differentiating by sex and age group. This estimation is informed by gaps in household income for employed individuals living alone, comparing LGBTI+ adults with their cisgender straight peers, and adjusting for essential demographic characteristics, as well as sector and occupation. These income disparities are presented in column 3 of Table 4.1, based on the estimates obtained in Chapter 3.

Finally, the projections for capital stock ( $K_t$ ) rely on the assumption that the capital-to-output ratio will remain constant from 2024 onwards. This assumption implies that firms proportionally adapt their capital stock in response to changes in labour input. Although this approach abstracts from the dynamic adjustment of the capital stock, it is noteworthy that fluctuations in the capital-to-output ratio have had a relatively minor impact on economic growth in the United States over the past few decades (Jones, 2016<sub>[9]</sub>). In line with this prior research, our estimates of the economic gains of greater LGBTI+ inclusion remain virtually unchanged if we allow for fluctuations in the capital-to-output ratio.<sup>2</sup>

Specifically, we consider two distinct baseline scenarios:

- A sex- and cohort-blind approach. This approach is considered naïve as it fails to account for variations in both the share of self-identified LGBTI+ individuals and their unexplained labour market disparities across different sexes and cohorts. It assumes that in 2024, the share of LGBTI+ individuals and their unexplained labour market disparities in each sex and age group is equal to their average in the total working-age population, as reported in Table 4.1, maintaining these averages static through 2060. With this baseline scenario, the GDP is projected to increase by 1.5% by the year 2060, assuming LGBTI+ equality is achieved by that time, which coincides with the last year of the OECD long-term model.
- A cohort approach. This approach is deemed realistic as it recognises that both the share of selfidentified LGBTI+ individuals and the extent of their labour market disparities differ by sex and cohort. This method assumes that for each sex and age group in 2024, the percentage of LGBTI+ adults and the degree of their labour market disparities remain unchanged as individuals in this

group age. For instance, if AFAB LGBTI+ individuals aged 20 in 2024 experience a 12.8% lower labour productivity than their cisgender straight peers, as specified in Table 4.1, this gap is expected to still be equal to 12.8% as they age to 56 by the year 2060 (while the share of LGBTI+ individuals among the AFAB population aged 55-74 will then be equal to their share in the AFAB population aged 15-34 in 2024). With this baseline scenario, the GDP is projected to increase by 2.9% by the year 2060, provided that LGBTI+ equality is achieved by that time.

## Table 4.1. Share of self-identified LGBTI+ individuals and unexplained employment and labour productivity disparities, in the working-age population and by sex assigned at birth and age group

	Share of self-identified LGBTI+ individuals	LGBTI+ unexplained employment gap	LGBTI+ unexplained labour productivity gap
TOTAL WORKING-AGE POPULATION	11.6%	-3.9 percentage points	-7.2%
YOUNG WORKING-AGE POPULATION (age 15-34)			
All	22.8%	-3.3 percentage points	-10.4%
AFAB (Assigned Female at Birth)	28%	0 percentage point (-1 percentage point but not statistically significant at the 90% confidence level)	-12.8%
AMAB (Assigned Male at Birth)	17.5%	-5.1 percentage points	-6.9%
PRIME AGE WORKING-AGE POPULATION (age 35-54)			
All	9.3%	-2.8 percentage points	-4%
AFAB (Assigned Female at Birth)	9.8%	-3.3 percentage points	-8.9%
AMAB (Assigned Male at Birth)	8.7%	0.0 percentage point (-1.9 percentage points but not statistically significant at the 90% confidence level)	0.0% (+1.1% but not statistically significant at the 90% confidence level)
MATURE WORKING-AGE POPULATION (age 55-74)			
All	5.1%	-1.8 percentage points	-4.9%
AFAB (Assigned Female at Birth)	4.4%	-4.2 percentage points	0.0% (-4.5% but not statistically significant at the 90% confidence level)
AMAB (Assigned Male at Birth)	5.8%	0 percentage point	0.0% (-3.7% but not statistically significant at the 90% confidence level)

Note: The LGBTI+ unexplained employment gap computed for the total working-age population is more pronounced than the LGBTI+ unexplained employment gap computed separately for the three age groups. This discrepancy arises as the gaps are estimated at the average of the covariates ("marginal effect at the mean"). Since different samples produce different average values for the covariates, the gap estimated at the average of the covariates using the total working-age population may fall outside of the range of the three gaps estimated at the average of the covariates using the total working-age population may fall outside of the range of the three gaps estimated at the average of the covariates using the three age group samples separately.

Source: Panel A of Figure 2.6. of Chapter 2 based on the Household Pulse Survey (4 January 2023 – 10 July 2023) for the share of self-identified LGBTI+ (the share of self-identified LGBTI+ individuals for working-age population and mature adults is slightly higher when excluding adults aged 75+), Figure 3.10. of Chapter 3 based on the Household Pulse Survey (21 July 2021 – 10 July 2023) for the LGBTI+ unexplained employment gap, Figure 3.14. of Chapter 3 based on the Household Pulse Survey (14 September 2022 – 10 July 2023) for the LGBTI+ unexplained labour productivity gap.

An additional baseline scenario could be envisioned that relies on a life-cycle approach. However, although this approach recognises that both the share of self-identified LGBTI+ individuals and the extent of their labour market disparities differ by sex and cohort, it is not a realistic method as it concomitantly assumes that these shares and disparities change as individuals in each group age. This assumption is at odd with Chapter 2. According to Chapter 2, the rising proportion of young adults identifying as LGBTI+ is not driven by an age effect, which would entail that, for younger generations, self-identifying as LGBTI+ is a fad that ceases once they grow older. Despite its lack of realism, we analyse the economic consequences of closing labour market gaps for LGBTI+ individuals under the life-cycle approach in 1Annex 4.A and find that closing unexplained labour market gaps for LGBTI+ individuals under this approach would still generate significant GDP gains.

## 4.2.3. The GDP gain from closing unexplained labour market gaps for LGBTI+ individuals by 2030, 2040 and 2050

For each of the two baseline scenarios described in the previous section, we consider that convergence towards LGBTI+ equality is achieved either in 2030, 2040 or 2050. Specifically, we assume that the employment rates and labour productivity of LGBTI+ adults converge linearly with those of their cisgender straight peers by these different time horizons. This entails that efforts are made every year until full equality between cisgender straight and LGBTI+ workers is achieved by the target year, with a particular emphasis on eradicating anti-LGBTI+ hiring discrimination and the misallocation of LGBTI+ talents. The assumption of convergence by 2030 is crafted based on the principles of the Agenda 2030 for Sustainable Development, ratified by the United Nations General Assembly in September 2015 (UN General Assembly, 2015<sub>[10]</sub>). Although LGBTI+ individuals are not explicitly categorised as a marginalised group in Agenda 2030, many of the 17 Sustainable Development Goals (SDGs) offer avenues to ensure that they are not left behind (Open for Business, 2020<sub>[11]</sub>; Stonewall International, 2016<sub>[12]</sub>). For instance, SDG 8 establishes that everyone has the right to employment and decent work, in a safe environment, with equal pay for work of equal value. By 2030, its objective is to attain full and productive employment for all women and men, including for young people and persons with disabilities.

#### The sex- and cohort-blind approach

Panel A of Figure 4.1 illustrates the GDP gain that would be generated from efforts to achieve LGBTI+ equality by 2030, 2040, and 2050, compared to the baseline scenario, when one relies on the sex- and cohort-blind approach. This means that the share of LGBTI+ individuals and their unexplained labour market disparities does not vary by sex and age group at the beginning of the period (2024), matching the average for the total working-age population.

Under these conditions, the United States could anticipate an increase in GDP equal to approximately 1.5% of the baseline GDP by 2030. Pushing this goal further would translate into the same increase in GDP by 2040 and 2050. To put an estimate of 1.5% of the baseline GDP into perspective, this amount is 40% higher than the total US expenditure on public unemployment and labour market programmes in 2020/21. It is also equivalent to 20% of pension spending in 2020 and to more than 6% of total social spending in 2021.<sup>3</sup>

#### The cohort approach

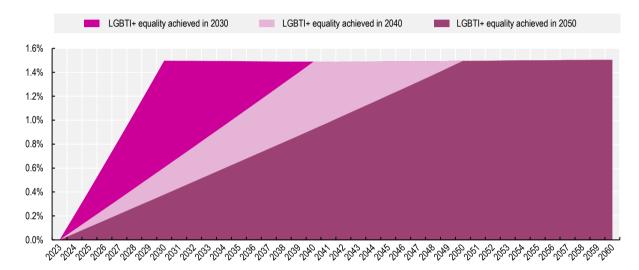
The economic benefits of achieving LGBTI+ equality would be more substantial under a cohort approach (Panel B of Figure 4.1). There are two reasons for this. First, consistent with Chapter 2's findings, such an approach accounts for the expected rise over time in the proportion of self-identified LGBTI+ individuals within the total population, as the younger cohorts, characterised by a larger share of non-heterosexual non-cisgender individuals, age. Second, it assumes that, as these younger cohorts mature, the extent of

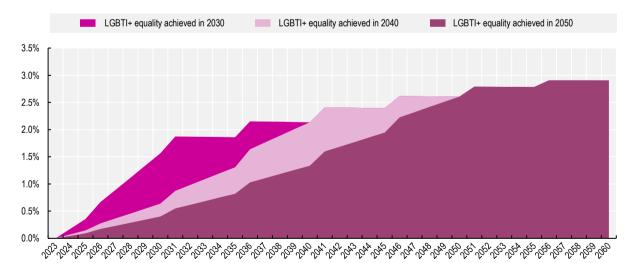
labour market disparities, which are more pronounced within this group, presumably due to a lower tendency for non-disclosure bias, would increase in the baseline scenario.

Under the cohort approach, the GDP is projected to increase by 1.6%, 2.1%, and 2.6% of the baseline GDP by 2030, 2040, and 2050, respectively. These projections assume that the United States achieves LGBTI+ equality by these respective time horizons.

### Figure 4.1. The increase in GDP from addressing the unexplained labour market disparities affecting LGBTI+ individuals is substantial

Panel A: GDP gain that would be generated, under a sex- and cohort-blind approach, from efforts to achieve LGBTI+ equality by 2030, 2040, and 2050, compared to a baseline scenario where no such efforts are undertaken (2024-60)





Panel B: GDP gain that would be generated, under a cohort approach, from efforts to achieve LGBTI+ equality by 2030, 2040, and 2050, compared to a baseline scenario where no such efforts are undertaken (2024-60)

Note: Potential GDP is defined for the total economy using a constant returns-to-scale Cobb-Douglas production function featuring total employment, labour productivity per worker, and physical capital stock. The GDP gain is computed comparing the baseline scenario (unexplained LGBTI+ labour market gaps remain as in 2023), with two alternative scenarios. These scenarios assume that unexplained LGBTI+ labour market outcomes linearly converge to those of their cisgender straight peers by 2030, 2040 and 2050, respectively. In Panel A, both the baseline and the alternative scenarios rely on a sex- and age-blind approach, while they rely on a cohort approach in Panel B. Source: OECD estimates based on the OECD long-term model projections and Household Pulse Survey data.

130 |

#### The yearly increase in GDP under the three different approaches

As indicated in Table 4.2, attaining LGBTI+ equality by 2030 would result in an average annual increase in GDP of approximately 0.2% under the two approaches, which amounts to 10% of the average annual US GDP growth observed between 2013 and 2023. However, as already evident in Figure 4.1, delaying the achievement of LGBTI+ equality would yield reduced economic benefits when translated in yearly GDP gains. The average annual increase in GDP ranges between 0.09% and 0.13% if the target year is 2040, and between 0.06% and 0.10% if the target year is 2050.

## Table 4.2. Annual GDP gain from efforts to achieve LGBTI+ equality by 2030, 2040, and 2050, compared to a baseline scenario where no such efforts are undertaken

	2024-30	2024-40	2024-50
Sex- and cohort-blind approach	0.21% (or an increase in annual	0.09% (or an increase in annual	0.06% (or an increase in annual
	GDP growth of 0.21 percentage	GDP growth of 0.09 percentage	GDP growth of 0.06 percentage
	point)	point)	point)
Cohort approach	0.22% (or an increase in annual	0.13% (or an increase in annual	0.10% (or an increase in annual
	GDP growth of 0.22 percentage	GDP growth of 0.13 percentage	GDP growth of 0.10 percentage
	point)	point)	point)

Source: OECD estimates based on the OECD long-term model projections and Household Pulse Survey data.

## 4.2.4. The share of projected GDP in 2024 which is lost due to LGBTI+ individuals' unexplained labour market gaps

The OECD long-term model offers a significant advantage by extending GDP projections up to 2060. This provides a tangible forecast of the economic benefits that can be realised by narrowing labour market disparities affecting LGBTI+ individuals across different time frames. Unlike static models, which do not account for the incremental nature of such changes, this dynamic model reinforces the economic argument for LGBTI+ equality with realistic projections, acknowledging that such equality cannot be achieved overnight.

However, this model can also be used in a static capacity to estimate the cost of not closing employment and labour productivity penalties faced by LGBTI+ individuals or, conversely, the gain associated with closing those gaps immediately. When used in this way, it reveals that instantaneously achieving LGBTI+ equality results in a GDP gain equivalent to approximately 1%, irrespective of the baseline scenario considered. Here, we assume that capital does not adjust, a reasonable assumption when the increase in labour input is assumed to be instantaneous.

There have been several previous attempts to quantify the immediate economic cost of LGBTI+ labour market gaps. The first comprehensive framework for assessing this burden was developed by Lee Badgett in 2014 (Badgett, 2014<sub>[13]</sub>) – see Box 4.2 for more details on the methodology. This framework is equivalent to a static version of the OECD long-term model, except that Badgett only considers the costs associated with lower labour productivity for employed LGBTI+ individuals, overlooking the impact of their lower employment rates. Badgett subsequently applied this framework with data from India and the Philippines (Badgett, 2020<sub>[14]</sub>). This seminal work laid the groundwork for subsequent analyses in this field, such as in South Africa (Nyek et al., 2019<sub>[15]</sub>), Kenya (Open for Business, 2019<sub>[16]</sub>), Czechia (Open for Business, 2020<sub>[17]</sub>), Hungary, Poland, Romania, and Ukraine (Open for Business, 2021<sub>[18]</sub>), and in the English-speaking Caribbean area (Open for Business, 2021<sub>[19]</sub>).

An interesting alternative to the static version of the OECD long-term model is a methodology developed by the International Labour Organization (ILO). This approach aims to quantify the economic output lost due to discrimination, as self-reported by affected individuals. Initially, this method was applied to study the economic impact of discrimination against people with disabilities (Buckup,  $2009_{[20]}$ ) – see Box 4.3 for more details. However, this approach has its drawbacks. It is not based on a growth model, which can make it seem *ad hoc*. Additionally, using perceived discrimination as a proxy for actual discrimination can be problematic because the two can differ significantly, potentially leading to inaccurate estimates of the economic repercussions of discrimination.

The empirical application of ILOs' methodology also poses challenges. It typically requires the collection of original survey data since few nationally representative surveys provide comprehensive information on both labour market outcomes and perceptions of discrimination. Two recent World Bank reports have attempted to apply the ILO's methodology to quantify the economic cost of anti-LGBTI+ discrimination in the context of the Republic of Serbia (Flores et al., 2023[21]) and the Republic of North Macedonia (Flores et al., 2023<sub>[22]</sub>). However, these studies rely on data collected from a non-probability sample of LGBTI+ individuals. Specifically, these individuals were recruited through purposive methods, such as social media campaigns, and seem to come from the more privileged segments of the LGBTI+ population, leading to a selection bias that obscures any labour market disparities. Notably, they have a much higher educational attainment than the general population, which implies the presence of other unobserved traits conducive to economic success. Consequently, even when researchers control for demographic differences between the LGBTI+ sample and the general population, several of the gaps observed in terms of labour productivity, unemployment rate, or inactivity rate appear as premiums, not penalties, for LGBTI+ individuals. This selection bias leads to underestimating the economic cost of anti-LGBTI+ discrimination. Nevertheless, the World Bank provides estimates of the output lost due to the exclusion of LGBTI+ individuals which are economically significant: 0.5% of the 2021 GDP, both in Serbia and in the Republic of North Macedonia.

### Box 4.2. Lee Badgett's methodology to quantify the lost economic output due to labour market disparities for LGBTI+ individuals

In 2014, Lee Badgett developed a framework for quantifying the economic cost associated with labour market disparities for LGBTI+ individuals (Badgett, 2014<sub>[13]</sub>). Specifically, Badgett focuses on the burden resulting from lower labour productivity for employed LGBTI+ individuals. She doesn't consider the costs associated with their lower employment rates.

The starting point is the following Cobb-Douglas production function featuring physical capital stock (K), total employment (N), and total factor productivity (TFP):

 $Y=TFP^*K^{\alpha*}N^{1-\alpha},$ 

where  $\alpha$  varies between 0 and 1 – while  $\alpha$  is equal to 1/3 in most economies, as explained in Box 2.6, exceptions exist, such as in India, where  $\alpha$  is estimated to be equal to 1/2.

Under perfect competition, the wage paid to each worker is given by w=MPN, where MPN stands for the marginal productivity of employment. It follows that the share of the total output Y that is paid out as wages to workers is given by:

An increase in labour productivity, denoted by  $\Delta w$ , thus yields an increase in aggregate output given by:

$$\Delta Y = (\Delta w^* N)/1 - \alpha.$$

In other words, the economic cost of lost productivity due to LGBTI+ workers having x% lower wages than the average wage w is given by:

$$\Delta Y = (x\%^* w^* N^{\text{LGBTI+}})/1 - \alpha,$$

where N<sup>LGBTI+</sup> is the number of employed LGBTI+ individuals.

In empirical applications of this theoretical framework, x is typically proxied by the percentage gap in labour earnings between LGBTI+ workers and their cisgender straight peers, while N<sup>LGBTI+</sup> is proxied by the share of LGBTI+ individuals in the working-age population multiplied by the total number of workers in that population.

### Box 4.3. ILO's methodology to quantify the economic output lost due to discrimination, as self-reported by affected individuals

This methodology comprises three steps. First, it categorises a marginalised group into three subgroups based on low, moderate, and high self-reported exposure to discrimination. The rest of the population is assumed not to experience discrimination. Second, for each subgroup, denoted by i, the methodology calculates the lost labour productivity per individual due to: (1) higher rates of inactivity; (2) higher rates of unemployment; (3) lower labour productivity, conditional on being employed.

Regarding the latter component, the labour productivity of an employed individual in group i is denoted by A<sub>i</sub>, while the average labour productivity of an employed individual in the total working-age population is denoted by A.

It follows that the lost labour productivity for each individual in group i, denoted by P<sub>i</sub>, is given by:

 $P_i = A^*(B_i - \beta_i)^* n_i + A^*(u_{i-}u) + A^*(d_i - d)],$ 

where:

- (1) A\*(Bi-βi)\*ni reflects the lost labour productivity for employed individuals in group i. It derives from two steps. First, one computes the percentage gap in labour productivity between the average worker and an employed individual in group i. Specifically, this gap is given by the difference between the *potential* productivity of every individual in group i relative to the productivity of the average worker (Bi=A/A=1) and their relative *actual* productivity of an employed individual in the total working-age population) and by ni (the share of individuals in group i who are currently employed).
- (2) A\*(ui-u) captures the lost labour productivity due to higher unemployment rates in group i. It is obtained by multiplying A by the unemployment gap for group i. The latter is computed as the difference between the unemployment rate of individuals in group i (ui) and the average unemployment rate within the working-age population (u).
- (3) A\*(d<sub>i</sub>-d) represents the lost labour productivity due to higher inactivity rates in group i. It is obtained by multiplying A by the inactivity gap for group i. The latter is computed as the difference between the inactivity rate of individuals in group i (d<sub>i</sub>) and the average inactivity rate within the working-age population (d).

The economic cost C of lost labour input due to (self-reported) discrimination is then modelled as follows:

$$C = \sum_{i=1}^{i=3} (N_i * P_i),$$

where  $N_i$  is the number of individuals in each group i.

# 4.3. There are many more benefits from LGBTI+ equality than just the economic gains derived from the OECD long-term model

Eliminating anti-LGBTI+ discrimination will lead not only to closing labour market gaps between LGBTI+ individuals and their cisgender straight peers but also to significant additional gains that the OECD long-term model does not account for. This means that the actual economic benefits of increased LGBTI+ equality are likely to be even more substantial than the previous calculations suggest. In this section, we first explore the primary channels through which ending anti-LGBTI+ discrimination can drive additional economic gains. We then discuss other potential channels which, although less apparent, can still have far-reaching effects in terms of economic growth.

## 4.3.1. Improved public finances through increased tax revenues and reduced public expenditures

Promoting greater LGBTI+ equality leads to production gains that subsequently bolster public finances. An uptick in production and labour earnings enhances public revenue from corporation tax, income tax, and social security contributions. These positive effects might be further magnified by increased consumption tax revenue, at least in the short run. As detailed in Box 4.4 and shown in Figure 4.2, LGBT individuals spend more on consumer goods and services than their cisgender straight peers, controlling for essential demographics, including parental status. This pattern could possibly be in response to the uneven playing field they navigate, meaning that the distinctive consumption trends of LGBT individuals might vanish as they experience a more level playing field. Moreover, eradicating anti-LGBTI+ discrimination cuts public expenditure, as greater workforce participation reduces the need for unemployment benefits, active labour market policies, and social transfers.

#### Box 4.4. Pink money unveiled

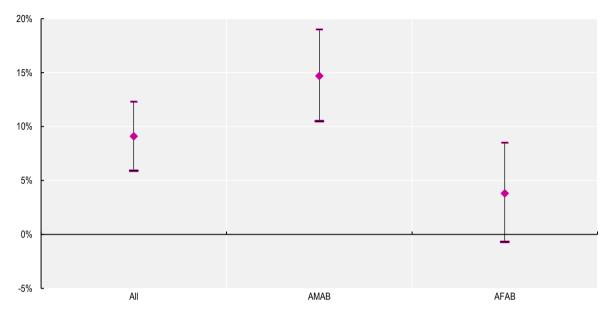
In a survey conducted in the United States in 2016, LGBT respondents were more likely to consider themselves "*spenders*", and to spend more (and save less) compared to general population respondents (Prudential, 2017<sub>[23]</sub>). In addition, in a recent report, LGBT Capital, an analytical firm focused on the LGBT consumer segment, estimated that the United States aggregated spending power of the LGBT population, often called "*pink money*", is around USD 1.4 trillion per year (LGBT Capital, 2023<sub>[24]</sub>).

These insights are confirmed by the Gallup US Daily Survey which reveals that, accounting for differences in demographics and household income, LGBT adults spend 9% more on consumer goods and services, compared to their cisgender straight peers. As shown in Figure 4.2, this pattern is mainly driven by AMAB individuals. Further analysis indicates that this spending premium prevails for all age groups within the AMAB LGBT population, although it is more pronounced among prime age individuals, aged between 35 and 54. Concerning the AFAB LGBT population, a premium emerges only among this latter age range – no statistically significant difference is observed among the other age groups. (Results available upon request.)

In this context, greater LGBTI+ equality is poised to yield increased revenue from consumption tax, at least in the short term, since the distinctive consumption patterns of LGBT individuals might vanish as they experience a more level playing field. While more research is essential, it is plausible that heightened spending on consumer goods and services among LGBT adults stems in part from their responses to the discrimination they face in various life areas, including barriers to family formation which might reduce their incentives to save.

### Figure 4.2. All other things being held constant, LGBT adults spend 9% more on consumer goods and services compared to their cisgender straight peers, a result driven by AMAB individuals

Percentage difference in personal expenditure on consumer goods and services, using non-LGBT individuals as the reference category (2012-17)



Note: This figure analyses responses to the following question: "We'd like you to think about your spending yesterday, not counting the purchase of a home, motor vehicle, or your normal household bills. How much money did you spend or charge yesterday on all other types of purchases you may have made, such as at a store, restaurant, gas station, online, or elsewhere?". It relies on an OLS regression of the logarithm of personal expenditure on consumer goods and services, controlling for sex assigned at birth, age groups (18-24, 25-29, 30-34, ..., 80-84, 85-88), race and ethnicity, marital, partnership and parental status, number of adults in the household, educational attainment, household income, as well as year and month fixed effects. The error bars depict 95% confidence intervals. This means that we can be 95% confident that the true value lies within the range of the error bar. In other words, if the error bar crosses the x-axis, then the percentage difference cannot be deemed as statistically different from 0 (at least not at this 95% confidence level). Standard errors robust to heteroscedasticity. Person-level weights used.

Source: Gallup US Daily Survey (2012-17).

Promoting greater LGBTI+ equality can also lead to economic benefits through reduced public health expenditures. As discussed in Chapter 3, stigma has been identified as a significant factor contributing to the poorer mental, behavioural, and physical health of LGBTI+ individuals. The financial implications could be substantial. In 2022, the United States spent 16.6% of its GDP to healthcare services (OECD, 2023<sub>[25]</sub>). This spending covered personal healthcare – which includes curative, rehabilitative, long-term care, ancillary services, and medical goods – as well as collective services such as prevention, public health services, and health administration. Furthermore, reducing stigma-related health issues for LGBTI+ individuals would not only alleviate the burden on the health system but also lessen associated costs in other areas, like social security programmes, which cover paid sick leave and disability benefits. It is critical to note that these expenditure figures do not reflect the broader costs associated with the negative impact of discrimination on health, such as the loss of human capital due to the premature mortality of LGBTI+ individuals whose health suffers due to stigma, including through deaths by suicide.<sup>4</sup> In Section 4.4, we aim to address this limitation by closely examining the economic and well-being burden that health disparities impose on LGBTI+ individuals.

## 4.3.2. Additional channels through which greater LGBTI+ equality will generate economic growth

Beyond bolstering tax revenues and reducing public expenditures, eliminating anti-LGBTI+ discrimination will bring significant economic benefits through various additional channels. These include enhanced wealth accumulation, greater opportunities for LGBTI+ individuals to start families and invest in their children, and the potential to tap into the diversity and gender equality dividend.

#### Enhanced wealth accumulation

Marriage equality for LGBTI+ individuals is likely to boost their capacity for wealth accumulation thanks to a stabilizing effect that facilitates long-term planning (Badgett, 2009<sub>[26]</sub>). Evidence has confirmed this mechanism, by revealing the benefits for same-sex couples of being able to "upgrade" their civil partnership to a civil marriage, even in countries like the Netherlands where civil partnership and civil marriage are fully similar in terms of rights and obligations. More precisely, same-sex partners who transformed their civil partnership into marriage had a substantially lower separation rate following this change than similar partners who stayed in a civil partnership, which suggests that the symbolism of marriage is real and contributes to the longevity of same-sex partnerships (Chen and van Ours, 2020<sub>[27]</sub>). In line with this finding, (Delhommer and Hamermesh, 2021<sub>[28]</sub>) highlighted the economic benefits of marriage based on US data. Their research compared two otherwise observationally identical same-sex couples with the same duration of partnership and found that the couple who experienced a longer period of their relationship under the institution of legalised same-sex marriage had a higher household income and were more likely to own a home.

Greater equality for LGBTI+ individuals in other life areas is likely to further enhance their potential to accumulate wealth. For example, reduced barriers to parenthood can lead to increased savings. Additionally, ending the discrimination that LGBTI+ individuals face in credit and mortgage lending (see Chapter 3 for evidence of such discrimination) can significantly improve their financial health.

#### Increased fertility and investment in children

Lowering barriers to assisted reproductive technology for LGBTI+ individuals is likely to foster fertility. This is a promising perspective in a context where OECD countries are currently exhibiting the lowest ever recorded average fertility rate – at only 1.59 children per woman in 2020, which is far below the "replacement level" of 2.1 children per woman (Fluchtmann, van Veen and Adema, 2023<sub>[29]</sub>). In other words, greater LGBTI+ equality could help to counteract the shrinking working-age population occurring in several OECD countries, a trend resulting from rising longevity and falling fertility rates. Simultaneously, providing LGBTI+ individuals with greater access to adoption and foster care will lead to increased investment in children, as more children without biological parents able to care for them will have the opportunity to grow up in a loving and caring family.

This increased investment in children will likely be compounded by more LGBTI+ individuals becoming biological parents through assisted reproductive technology. Indeed, compelling evidence indicates that children of same-sex parents conceived through these methods tend to have better education and health outcomes compared to the biological children of different-sex parents (OECD, 2020<sub>[1]</sub>). This finding remains consistent even when considering differences in socio-economic status between same-sex and different-sex parents, as same-sex parents who procreate typically have higher levels of income and education than their different-sex counterparts – an expected result due to the significant time and financial costs associated with assisted reproductive technology. In line with the observed education and health advantages of children born to same-sex couples, same-sex parents tend to spend more time with their children than different-sex parents. In the United States, women (regardless of their partners' sex) and partnered gay men engage in a similar amount of child-focused time with children (roughly 100 minutes

per day). By contrast, partnered heterosexual men dedicate less than one hour to their children, on average (Prickett, Martin-Storey and Crosnoe, 2015<sub>[30]</sub>). The education and health premium observed in children of same-sex parents who were conceived through assisted reproductive technology may reflect that same-sex couples cannot unintentionally become parents due to birth control failure, as can happen with heterosexual couples. Instead, they deliberately choose to become parents. This dynamic may lead to a selection effect where gays and lesbians who become parents are, on average, more committed to the challenges of parenting compared to some of their heterosexual counterparts (Rosenfeld, 2010<sub>[31]</sub>).

#### Tapping into the diversity and gender equality dividend

Ending anti-LGBTI+ discrimination can equip the economy to harness the economic potential of greater diversity. A work environment that is inclusive creates the condition for diversity to become a performance enhancer – while diversity can hinder performance in non-inclusive settings (OECD, 2020<sub>[32]</sub>). An inclusive environment allows for the pooling of a richer set of perspectives, skills and experiences whose benefits can outweigh the increased communication and co-ordination costs associated with diverse backgrounds.

Dutch researchers have corroborated this mechanism, using a sample of 550 students from Amsterdam University of Applied Sciences, known for its commitment to attracting a diverse range of profiles eager to engage with peers from different backgrounds. In line with this mission, the student pool analysed has an almost equal split by gender and foreign-born/native-born status. Specifically, students of foreign origin make up 55% of the sample, with a significant proportion hailing from non-European countries (excluding North America, Australia, and New Zealand). As a component of their training, students form teams of 10 to 12 to create and manage a real company over a year. Each team handles fundraising, production, marketing, accounting, tax obligations, and more. To assess the impact of diversity, the researchers determined each team's composition, exogenously varying not only the gender proportion (from 20% to 60%) but also the mix of nationalities. Their findings indicate that both gender diversity (Hoogendoorn, Oosterbeek and van Praag, 2013<sub>[33]</sub>) and racial/ethnic diversity (Hoogendoorn and van Praag, 2018<sub>[34]</sub>) significantly boost the turnover and profit of the student-led start-ups, an outcome likely influenced by the inclusive environment in which students operate. Of course, further research is needed to test whether these findings apply to settings with a diversity of sexual orientations and gender identities.

The positive impacts of greater diversity in sexual orientations and gender identities, especially in environments where such diversity is valued, can be amplified by the ripple effects that greater LGBTI+ equality might have on the emancipation of other groups, primarily women. LGBTI+ inclusion inherently challenges heteronormativity, which confines men and women to rigid roles that are obstructive to women's empowerment. Furthermore, embracing LGBTI+ identities means recognising the complex spectrum of gender, leading to a re-evaluation of societal expectations for both men and women. In line with this observation, countries most proactive in enacting laws that promote LGBTI+ equality also tend to have the highest support for gender equality and female labour force participation. Additionally, these countries often exhibit the narrowest gender wage gaps (OECD, 2020[1]). Under these circumstances, the elimination of anti-LGBTI+ discrimination might bolster gender equality which, alone, has proven to generate substantial economic gains (OECD, 2023[6]; OECD, 2022[7]).

# 4.4. Removing the economic and well-being burden of mental health disparities for LGBTI+ Americans will give benefits equivalent to a significant share of GDP

The purpose of this section is to quantify the economic and well-being burden faced by LGBTI+ individuals due to their disproportionate health challenges. This burden can be thought of as comprising three main components: i) the reduction in market income; ii) the reduction in longevity; and iii) the reduction in psychological well-being, often labelled as "pain and suffering" (World Health Organization, 2001<sub>[35]</sub>). The reduction in market income encompasses at least four sub-components. First, the private costs of medical

treatment – public health expenditures which are discussed in Section 4.3. are not considered here as the focus is the direct burden borne by LGBTI+ individuals. Second, the loss of labour-market income due to morbidity, a factor accounted for by the OECD long-term model. Third, the diminished adult earning power resulting from diseases in childhood. And fourth, the loss of future earnings attributable to premature mortality.

This section first presents the methodological framework used to measure the economic and well-being burdens that LGBTI+ Americans face due to their health disparities. It then applies this methodology, focusing on the lower mental health of LGBTI+ individuals. In this setting, the estimates provided offer only a partial analysis of the full impact of their health disparities which often extend to behavioural health issues like sleep disorders and substance abuse, as well as physical health problems, including cardiovascular diseases and certain cancers.<sup>5</sup>

## 4.4.1. A methodological framework to quantify the economic and well-being impact of health disparities for LGBTI+ individuals

Applied to the mental health disparities of LGBTI+ individuals, the methodological framework developed by the World Health Organization entails three main steps.

- 1. Estimating the additional risk for LGBTI+ individuals to exhibit generalised anxiety or major depressive disorder. This initial step comprises three stages:
  - a. **Determining the higher prevalence of these conditions among LGBTI+ individuals** by calculating the percentage difference in the likelihood of exhibiting symptoms between LGBTI+ individuals and their cisgender straight peers, while accounting for differences in demographics and household income across these two groups, based on HPS data.
  - b. Calculating the increased number of LGBTI+ individuals with these conditions by applying the percentage difference obtained in the previous stage to the population of LGBTI+ individuals aged 15 or older. This figure is based on the proportion of LGBTI+ people in this age group, as derived from HPS data.
  - c. Assessing the proportion of LGBTI+ individuals with these conditions within the overall affected population by dividing the number from the previous stage by the total number of people affected by these conditions, as derived from HPS data.
- 2. Computing the number of disability-adjusted life years (DALYs) due to the higher prevalence of generalised anxiety or major depressive disorder among LGBTI+ individuals by multiplying the estimate from the last stage of Step 1 by the average number of DALYs in the total population attached to these conditions. Specifically, this number captures the cumulative years of life that people with at least one of these conditions lose from an early death or from poorer quality of life. It is obtained by adding the impact that these conditions have in terms of number of years of life lost (YLLs) and number of years lived with a disability (YLDs).<sup>6</sup> The average number of DALYs in the total population associated with generalised anxiety and major depressive disorders is obtained from the Global Burden of Diseases, Injuries, and Risk Factors Study 2019 (GBD, 2019<sub>[36]</sub>) which provides a 95% confidence interval for the number of DALYs related to 369 diseases and injuries, in 204 countries and territories.
- 3. Converting the mental health-related burdens of LGBTI+ individuals into a GDP percentage loss. To estimate the cost of these burdens on the economy, we draw on the World Health Organization's Commission on Macroeconomics and Health guidelines (World Health Organization, 2001<sub>[35]</sub>). Based on estimates of individual's willingness to pay for an improvement in their health risk, these recommendations assert that the value of an extra year of healthy life because of successfully treating a disease, for example is worth much more than just the additional market income earned in that year. In fact, it suggests that a healthy year can be valued at up to three times an individual's annual earnings, considering not only market consumption but

also the value of leisure, the intrinsic value of longevity, and the avoidance of the sufferings associated with illness. Utilising this approach, we calculate a range for the economic cost:

- a. The lower bound is the total DALYs related to anxiety and depression multiplied by the GDP per capita this represents the direct economic impact.
- b. The upper bound is this same figure but multiplied by three times the GDP per capita reflecting the broader value of health beyond earning capacity.

Each result is then expressed as a percentage of total GDP, providing a scale for the economic and wellbeing impact of mental health disparities among LGBTI+ individuals.

### *4.4.2. Estimating the economic and well-being burden of mental health disparities among LGBTI+ Americans*

Lee Badgett was the first to adapt the methodology developed by the World Health Organization to the disproportionate health challenges for LGBTI+ individuals (Badgett, 2014<sub>[13]</sub>). Since then, this method has been applied to the context of South Africa (Nyek et al., 2019<sub>[15]</sub>), Kenya (Open for Business, 2019<sub>[16]</sub>), India and the Philippines (Badgett, 2020<sub>[14]</sub>), Czechia (Open for Business, 2020<sub>[17]</sub>), Hungary, Poland, Romania, and Ukraine (Open for Business, 2021<sub>[18]</sub>), the English-speaking Caribbean area (Open for Business, 2021<sub>[19]</sub>), and Uzbekistan (Open for Business, 2021<sub>[37]</sub>).

### Figure 4.3. Removing the economic and well-being burden of mental health disparities for LGBTI+ Americans will give benefits equivalent to a significant share of GDP

0.00% 0.05% 0.05% 0.10% 0.10% 0.15% Lower bound Upper bound

Loss associated with higher incidence of anxiety and depression among LGBTI+ Americans, expressed as a percentage of GDP (2024)

Note: The economic and well-being impact of higher incidence of anxiety and depression for LGBTI+ individuals is derived from the average number of disability-adjusted life years (DALYs) in the total population attached to these conditions. Specifically, this number captures the cumulative years of life that people with at least one of these conditions lose from an early death or from poorer quality of life. It is obtained by adding the impact that these conditions have in terms of number of years of life lost (YLLs) and number of years lived with a disability (YLDs). This burden is then converted into a monetary value by multiplying the average DALYs by one (lower bound) to three (upper bound) times GDP per capita. The error bars depict 95% confidence intervals on the measure of average DALYs. Source: 2019 Global Burden of Disease (GBD) and Household Pulse Survey (2023).

#### 140 |

We add to this literature by focusing on the US context. The economic and well-being impact of mental health disparities among LGBTI+ Americans is substantial. In 2024, it will amount to a loss which, expressed as a share of GDP, varies between 0.04% (lower bound) and 0.12% (upper bound) of US GDP, or between USD 11.2 billion and USD 33.6 billion (Figure 4.3). In terms of magnitude, this cost is equivalent to 4%-12% of US expenditure on incapacity (spending due to sickness, disability and occupational injury) in 2020 (OECD, 2023<sub>[38]</sub>).

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| 141

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### Annex 4.A. The impact of closing unexplained labour market gaps for LGBTI+ individuals under the life-cycle approach

A life-cycle approach recognises that both the share of self-identified LGBTI+ individuals and the extent of their labour market disparities differ by sex and cohort. However, it is not a realistic method as it concomitantly assumes that these shares and disparities change as individuals in each group age. For instance, if, as detailed in Table 4.1, AFAB LGBTI+ individuals aged 20 in 2024 experience a 12.8% lower labour productivity than their cisgender straight peers, the life-cycle approach presumes that this gap will have disappeared as they age to 56 by the year 2060 (while the share of LGBTI+ individuals among the AFAB population aged 55-74 will then be equal to 4.4%, not 28% as it is the case for the AFAB population aged 15-34 in 2024). This assumption is at odd with Chapter 2. Notably, according to Chapter 2, the rising proportion of young adults identifying as LGBTI+ is not driven by an age effect which would entail that, for younger generations, self-identifying as LGBTI+ is a fad that ceases once they grow older.

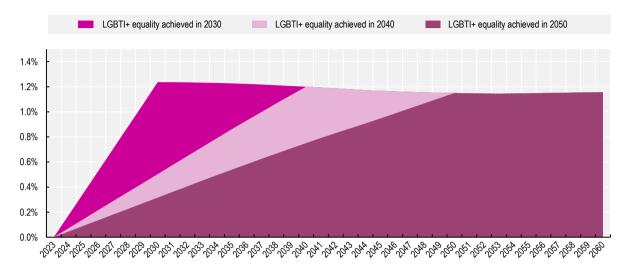
Despite its lack of realism, we analyse the economic consequences of closing labour market gaps for LGBTI+ individuals under the life-cycle approach. Not surprisingly, the economic benefits of achieving LGBTI+ equality are the lowest under this approach. Indeed, this method projects a decrease in the proportion of self-identified individuals within the total population as the younger cohorts age, leading to a decline in the extent of labour market disparities for LGBTI+ individuals in the total population.

Still the economic benefits of addressing the unexplained labour market disparities affecting LGBTI+ individuals would remain significant under a life-cycle approach (Annex Figure A.1). Under this approach, the GDP is projected to increase by 1.2%, 1.2%, and 1.1% of the baseline GDP by 2030, 2040, and 2050, respectively. These projections assume that the United States achieves LGBTI+ equality by these respective time horizons.

Under the life-cycle approach, attaining LGBTI+ equality by 2030 would result in an average annual increase in GDP of approximately 0.2%, which amounts to 10% of the average annual US GDP growth observed between 2013 and 2023. However, delaying the achievement of LGBTI+ equality would yield reduced economic benefits when translated in yearly GDP gains. The average annual increase in GDP would be equal to 0.07% if the target year is 2040, and to 0.04% if the target year is 2050.

### Annex Figure A.1. The increase in GDP from addressing the unexplained labour market disparities affecting LGBTI+ individuals would still be significant under a life-cycle approach

GDP gain that would be generated, under a life-cycle approach, from efforts to achieve LGBTI+ equality by 2030, 2040, and 2050, compared to a baseline scenario where no such efforts are undertaken (2024-60)



Note: Potential GDP is defined for the total economy using a constant returns-to-scale Cobb-Douglas production function featuring total employment, labour productivity per worker, and physical capital stock. The GDP gain is computed comparing the baseline scenario (unexplained LGBTI+ labour market gaps remain as in 2023), with three alternative scenarios. These scenarios assume that unexplained LGBTI+ labour market outcomes linearly converge to those of their cisgender straight peers by 2030, 2040 and 2050, respectively. Source: OECD estimates based on the OECD long-term model projections and Household Pulse Survey data.

### Notes

<sup>1</sup> More precisely:

- $A_t^{CS} * N_t^{CS} =$   $A_{18-34,t}^{AMAB,CS} * N_{18-34,t}^{AMAB,CS} + A_{35-54,t}^{AMAB,CS} * N_{35-54,t}^{AMAB,CS} + A_{55-74,t}^{AMAB,CS} * N_{55-74,t}^{AMAB,CS}$   $+ A_{18-34,t}^{AFAB,CS} * N_{18-34,t}^{AFAB,CS} + A_{35-54,t}^{AFAB,CS} * N_{35-54,t}^{AFAB,CS} + A_{55-74,t}^{AFAB,CS} * N_{55-74,t}^{AFAB,CS};$ •  $A_t^{LGBTI+} * N_t^{LGBTI+} =$ 
  - $$\begin{split} A_{18-34,t}^{AMAB,LGBTI+} * N_{18-34,t}^{AMAB,LGBTI+} + & A_{35-54,t}^{AMAB,LGBTI+} * N_{35-54,t}^{AMAB,LGBTI+} + & A_{55-74,t}^{AMAB,LGBTI+} * N_{55-74,t}^{AMAB,LGBTI+} \\ + & A_{18-34,t}^{AFAB,LGBTI+} * N_{18-34,t}^{AFAB,LGBTI+} + & A_{35-54,t}^{AFAB,LGBTI+} * N_{35-54,t}^{AFAB,LGBTI+} + & A_{55-74,t}^{AFAB,LGBTI+} * N_{55-74,t}^{AFAB,LGBTI+} \\ \end{split}$$

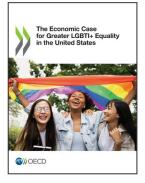
<sup>2</sup> Results available upon request.

<sup>3</sup> See: (OECD, 2023<sub>[42]</sub>; OECD, 2023<sub>[43]</sub>; OECD, 2023<sub>[40]</sub>; OECD, 2023<sub>[41]</sub>)

<sup>4</sup> In a 2001 study, Christopher Banks aimed to calculate the aggregate economic costs of health disparities among lesbian, gay, and bisexual individuals in Canada (Banks, 2001<sub>[39]</sub>). His analysis focused on lost productivity from morbidity and premature mortality, direct healthcare expenditures, and other costs like prevention. Assuming that 5% to 10% of the Canadian population identified as LGB, he estimated the total economic burden of increased health conditions attributable to homophobia for five health conditions. These estimates were USD 695 million to USD 823 million for suicide, USD 281 million to USD 623 million for smoking-related issues, USD 290 million to USD 4.1 billion for alcohol abuse, USD 119 million to USD 221 million for illicit drug use, and USD 540 million to USD 2.3 billion for depression, all reported in Canadian dollars of the time (2001).

<sup>5</sup> Including these additional health disparities in the analysis could significantly increase the aggregate economic and well-being costs. For instance, it is estimated that the GDP of the United States is reduced by nearly 1.9% due to the impact of diseases caused by alcohol consumption on life expectancy, health expenditure, employment, and productivity (OECD, 2021<sub>[44]</sub>).

<sup>6</sup> Years lived with a disability (YLD) are valued based on the public's perceptions about the severity of the health condition, while years of life lost (YLL) are calculated for someone with a disease by subtracting the age at death from a standard life expectancy value, defined as the lowest death rate for an age group across countries.



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