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**Taming the Dragon: How Labor Market Reforms Shaped
Germany's Response to the China Shock**

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Taming the Dragon: How Labor Market Reforms Shaped Germany's Response to the China Shock*

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Abstract

In the mid-2000s, Germany's Hartz reforms coincided with the China shock. We disentangle their effects with a two-country model featuring heterogeneous firms, search frictions, firing costs, and endogenous firm exit. With shocks disciplined by empirical evidence, the model accounts for 91 percent of the observed decline in German unemployment without targeting it. Trade matters: although the cut in unemployment benefits is the largest single driver of the long-run decline, trade liberalization alone lowers unemployment by more than half as much as all shocks combined and generates most of the welfare gains. Lower firing costs raise unemployment and reduce welfare, because firing costs partly correct a layoff externality. Unemployment benefits and trade are substitutes: under reformed institutions, unemployment responds much less to trade, and evaluations that ignore the trade shock overstate the reforms' effects by about 70 percent. Ignoring endogenous exit would overstate the gains from trade.

Keywords: Unemployment, Trade liberalization, Labor market reforms, Firm exit
JEL codes: E24, F12, F16, J63, J65

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1 Introduction

By the early 2000s, Germany was often called the “sick man of Europe” due to high unemployment, low growth rates, sclerotic labor markets, and concerns about international competitiveness (Dustmann et al., 2014). Unemployment rose to more than 11 percent in 2005 and then fell to less than 5 percent by 2015 (Table 1). Two developments coincided with this turnaround. Between 2003 and 2005, Germany implemented the Hartz reforms, one of the most comprehensive labor market reforms in a developed economy. At the same time, it became much more open to trade, in particular with China and Eastern Europe, an episode that has been termed the “China shock”. A large literature evaluates the contribution of the labor market reforms to the decline in unemployment with closed-economy models (Krause and Uhlig, 2012; Krebs and Scheffel, 2013; Launov and Wälde, 2013; Hochmuth et al., 2021; Hartung et al., 2026). This paper asks what role the simultaneous trade shock played and how it interacted with the reforms.

Table 1: Trade, institutions and unemployment

Germany					
Year	1992	2000	2005	2008	2015
Unemployment	6.3	7.9	11.2	7.5	4.6
Labor Market Institutions	-	2.98	3.94	3.94	7.18
Openness	44.7	59.2	67.0	76.1	77.8
United States of America					
Year	1992	2000	2005	2008	2015
Unemployment	7.5	4	5.1	5.8	5.3
Labor Market Institutions	-	7.64	9.14	9.2	9.14
Openness	20	25.1	25.6	29.9	27.7

The rate of unemployment is the total number of unemployed people divided by the labor force (modeled ILO estimates; World Bank, 2026, SL.UEM.TOTL.ZS). The measures of labor market institutions are taken from the Fraser Institute Economic Freedom of the World report from 2022 (Gwartney et al., 2022). The index takes values from 0 to 10. Higher values indicate more freedom, i.e., less restrictive regulation. Openness is imports and exports over GDP (World Bank, 2026, NE.TRD.GNFS.ZS).

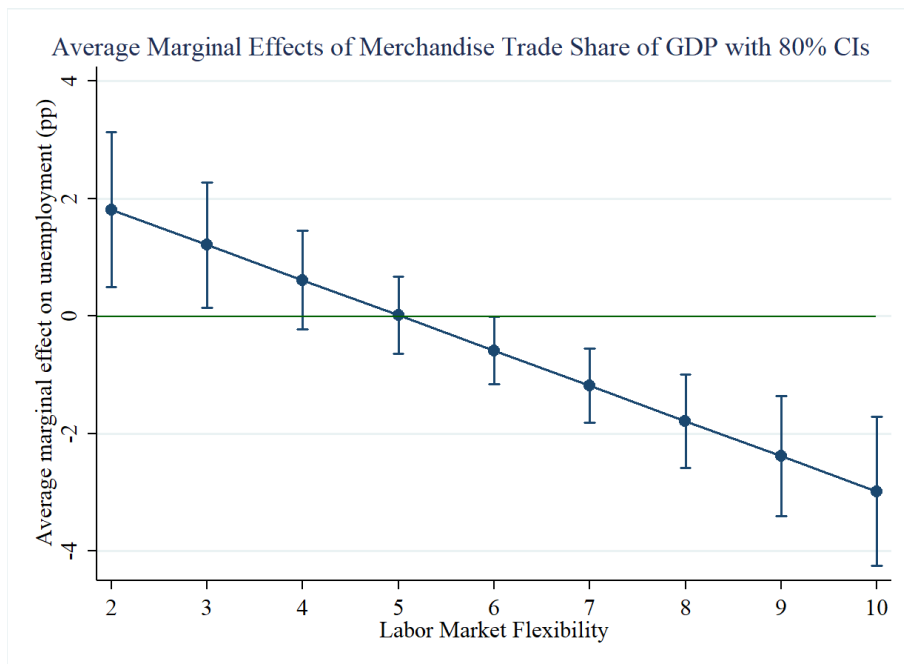
Table 1 contrasts Germany with the United States. In Germany, trade openness rose from 59 percent of GDP in 2000 to 78 percent in 2015, and the Fraser Institute’s index of labor market regulation, where higher values indicate less restrictive regulation, rose from 2.98 to 7.18. In the United States, openness increased more moderately, and regulation was light throughout. The consequences of trade integration also differed. In the United States, Chinese import competition raised unemployment in exposed local labor markets (Autor et al., 2013). In Germany, trade integration with China and Eastern Europe created more jobs in export-oriented industries than it destroyed in import-competing ones (Dauth et al., 2014).

The Hartz reforms were implemented in four stages (Jacobi and Kluve, 2007). Hartz I and II (2003) strengthened temporary work agencies, deregulated fixed-term contracts, and

made “mini-jobs” more attractive. Hartz III (2004) restructured the Federal Employment Agency. Hartz IV (2005) merged unemployment assistance and social assistance into one means-tested benefit and thereby cut benefits for the long-term unemployed. In addition, the same reform agenda raised the firm-size threshold for dismissal protection in January 2004 and shortened the maximum duration of unemployment insurance benefits from 2006 on. We focus on the two elements that directly affect job creation and job destruction: lower unemployment benefits and lower firing costs.

Cross-country evidence suggests that labor market institutions may shape how trade affects unemployment. We estimate a simple fixed-effects regression of unemployment on trade openness for 151 countries over the period 2000–2020, with an interaction term between openness and labor market flexibility, measured by the index of labor market regulation in Table 1. Figure 1 shows the marginal effect of openness on unemployment at different values of the index.¹ Openness is associated with higher unemployment where labor markets are heavily regulated and with lower unemployment where they are flexible. This pattern motivates our analysis. We do not pursue the regression further, however, as it raises serious endogeneity concerns: openness and labor market institutions are likely to be jointly determined with unemployment, so the correlations cannot be interpreted causally.

Figure 1: Interaction effects of trade and labor market institutions on unemployment



Note: Average marginal effect of log merchandise trade (in percent of GDP) on the unemployment rate (in percentage points) at different values of the Fraser Institute’s index of labor market regulation (higher values: less restrictive regulation), with 80 percent confidence intervals. Fixed-effects regression with a linear time trend; 151 countries, 2000–2020. See Online Appendix C.

These observations raise three questions. First, how much did trade liberalization and the labor market reforms each contribute to the decline in German unemployment, and what were their welfare effects? Second, how do labor market institutions shape the transmission of the trade shock, and how does the trade shock shape the effects of the reforms? Third, what role does endogenous firm exit play? Since the reforms and the

¹ Online Appendix C provides details and a description of the data underlying this motivating evidence.

trade shock occurred at the same time, the data alone cannot separate their effects. We therefore use a quantitative model, in which we can switch each shock on and off.

Our model builds on the two-country framework of Cacciatore (2014), which combines heterogeneous firms as in Ghironi and Melitz (2005) with search frictions, endogenous job destruction, and firing costs. We add endogenous firm exit as in Hauptmann et al. (2024), so that import competition can force the least productive firms out of the market. We calibrate the model to the German economy before the reforms and simulate three shocks: a fall in trade costs that reproduces the observed rise in German trade openness, a cut in unemployment benefits sized to the effect of Hartz IV estimated by Hochmuth et al. (2021), and a cut in firing costs that reproduces the additional hires after the 2004 reform estimated by Bauernschuster (2013). The effect of openness on unemployment is not targeted, but close to the estimate of Felbermayr et al. (2011b). With all three shocks, the model accounts for 91 percent of the observed decline in unemployment between 1993–2002 and 2011–2014, which we do not target either.²

Our results show that trade matters for understanding the German labor market miracle, in three respects. First, although the benefit cut is the most important single driver of the long-run decline in unemployment (2.4 percentage points), trade liberalization alone lowers unemployment by 1.7 percentage points, more than half as much as all shocks combined (3.0 points). Trade also accounts for most of the welfare gains: it raises welfare by 3.5 percent in consumption equivalents, compared to 1.5 percent for the benefit cut. The firing-cost cut, in contrast, raises unemployment and lowers welfare, because firing costs partly correct a layoff externality (Blanchard and Tirole, 2008).

Second, trade and the reforms interact. Unemployment benefits and trade are substitutes, as both work through the surplus of a match. Under pre-reform institutions, trade liberalization lowers long-run unemployment by 1.7 percentage points, under reformed institutions by only 0.7 points. Conversely, the reforms lower unemployment by 1.3 instead of 2.3 percentage points in the presence of the trade shock. An evaluation of the Hartz reforms that ignores the trade shock would thus overstate their effects by about 70 percent. Firing costs and trade, by contrast, are complements, in line with cross-country evidence: the index of labor market regulation covers dismissal protection, not unemployment benefits.

Third, endogenous exit matters. Trade liberalization triggers a wave of exits, because the marginal firm sells only in the domestic market and suffers from import competition. With a constant exit rate, as in Ghironi and Melitz (2005) and Cacciatore (2014), the model would overstate the long-run decline in unemployment due to trade (3.0 instead of 1.7 percentage points) and the welfare gain (4.8 instead of 3.5 percent), and it would understate what the reforms achieved in the presence of the trade shock.

So did the labor market reforms “tame the dragon”? In a sense they did: under reformed institutions, unemployment responds much less to trade. Yet in Germany, the dragon was not the threat it is often taken to be. On balance, trade integration lowered unemployment and raised welfare, and the reforms dampened rather than amplified these gains. This points to a fundamental policy challenge when designing labor market institutions in open economies subject to globalization shocks: what a reform achieves depends on the trade shocks that hit the economy at the same time.

² We use the unemployment rate of Hartung et al. (2026), which is based on registered unemployment in West Germany and is higher than the ILO rate in Table 1: 10.5 percent in 1993–2002 and 7.2 percent in 2011–2014.

1.1 Related literature

Trade and unemployment. Theory gives conflicting predictions on how trade affects unemployment. Felbermayr et al. (2011a) show that, with heterogeneous firms and vacancy posting costs, trade liberalization reduces unemployment in the long run because firm selection raises efficiency and resources are reallocated. Helpman et al. (2010) show that, under different assumptions on wage setting and labor market imperfections, trade can instead raise unemployment in some sectors. Cross-country panel evidence finds a negative relationship between trade openness and unemployment (Felbermayr et al., 2011b; Dutt et al., 2009).

Cacciatore (2014) reconciles both views in a dynamic model: trade integration raises unemployment in the short run, because displaced workers need time to find new jobs, and lowers it in the long run. In his model, rigid labor markets mitigate the short-run increase but reduce the long-run gains from trade. We extend his framework with endogenous firm exit and distinguish between unemployment benefits and firing costs. In line with his results, lower firing costs strengthen the unemployment-reducing effect of trade, but lower benefits weaken it. The short-run increase in unemployment is negligible in our simulations, because job creation rises at the same time as exits raise separations.

Capuano and Schmerer (2015) estimate a long-run equilibrium model with heterogeneous firms and search unemployment for Germany and find that trade liberalization lowers unemployment in the long run, while unemployment benefits have only modest effects. We study the transition, discipline the size of the benefit cut with empirical evidence, and show that benefits and trade interact strongly.

Evidence on the China shock. Regional studies find that Chinese import competition lowered manufacturing employment and raised unemployment (Autor et al., 2013; Balsvik et al., 2015; Dauth et al., 2014), with weaker effects where safety nets are stronger (Balsvik et al., 2015) and where export opportunities offset import losses, as in Germany (Dauth et al., 2014). Closest to our mechanism, Hauptmann et al. (2024) show that Chinese imports raise plant closures, especially outside export-oriented industries, and we take the endogenous exit mechanism from this paper. Reinecke and Schmerer (2019) find that German plants with severance payment obligations are less likely to cut their workforce after trade shocks, consistent with our result that firing costs reduce separations.

The Hartz reforms. Hartung et al. (2026) show that lower separation rates account for about 76 percent of the decline in unemployment after the reforms and attribute this decline to the cut in unemployment benefits. Other macroeconomic evaluations of Hartz IV find effects on unemployment between 0.1 and 2.8 percentage points (Launov and Wälde, 2013; Krebs and Scheffel, 2013; Krause and Uhlig, 2012), and Hochmuth et al. (2021) estimate a decline of 22.6 percent. All these studies use closed-economy models. In our model, the benefit cut also works mainly through separations, but ignoring the simultaneous trade shock overstates the effects of the reforms by about 70 percent.

Labor market institutions and macroeconomic fluctuations. In search models, labor market institutions shape the propagation of shocks. Regulation dampens fluctuations (Zanetti, 2009), and higher firing costs reduce the volatility of output, employment, and job flows, while unemployment benefits affect workers' reservation wages (Zanetti, 2011a,b). Employment protection has only a marginal effect on inflation dynamics in the euro area (Thomas and Zanetti, 2009). Fluctuations affect average unemployment and cause welfare

losses much larger than in Lucas' benchmark (Jung and Kuester, 2011). Closer to our welfare results, Blanchard and Tirole (2008) show that firms do not internalize the fiscal cost of layoffs, which calls for layoff taxes, and Jung and Kuester (2015) find that optimal layoff taxes and hiring subsidies rise in recessions. We study a trade shock instead and show that the productivity gains from trade reduce the welfare cost of lower firing costs.

2 Model

We use a two-country model with heterogeneous firms in the spirit of Ghironi and Melitz (2005) with an endogenous number of producers and firms sorting into non-exporters and exporters. Three features matter for our question. First, labor markets are subject to search frictions with endogenous job destruction and firing costs, as in Cacciatore (2014) and Cacciatore and Fiori (2016). Second, firms not only enter but also exit endogenously: each period, a firm compares the value of continuing with its liquidation value (Fasani et al., 2023; Hauptmann et al., 2024). Third, the three shocks we study enter at clearly separated points: iceberg trade costs τ_t affect firms' selection into production and exporting, the unemployment benefit replacement rate rr_t affects workers' outside option, and firing costs F_t affect the job destruction margin. The countries, Home and Foreign (denoted by an asterisk), are symmetric except for the labor market reforms, which only take place in Home. In the following, we present the Home block; households, pricing, aggregation and the remaining equilibrium conditions are in Appendix A.

2.1 Labor market

Each firm employs a continuum of workers in one-worker jobs. Jobs differ in an idiosyncratic productivity a , drawn i.i.d. each period from a log-normal distribution $H(a)$ with dispersion σ_a . A firm with productivity z produces $y_{z,t} = z \tilde{a}_{z,t} l_{z,t}$, where $l_{z,t}$ is the number of jobs and $\tilde{a}_{z,t} \equiv E[a | a \geq a_{z,t}^c]$ is the average productivity of the jobs that are kept. At the beginning of each period, a fraction $\bar{\lambda}$ of jobs is destroyed exogenously. After the job-specific shocks are realized, firms close all jobs with $a < a_{z,t}^c$ and pay a firing cost of F_t units of the final good per closed job. In addition, an endogenous share δ_t of firms exits each period, and all jobs in these firms are destroyed without firing costs. Employment in a surviving firm evolves as

$$l_{z,t} = (1 - \bar{\lambda}) \left[1 - H(a_{z,t}^c) \right] (l_{z,t-1} + q_{t-1} v_{z,t-1}), \quad (1)$$

where $v_{z,t}$ denotes the number of vacancies posted at a cost of κ units of the final good per vacancy, and q_t is the vacancy-filling rate. Unemployed workers U_t and vacancies V_t meet according to $M_t = \chi U_t^\epsilon V_t^{1-\epsilon}$, with $0 < \epsilon < 1$ and matching efficiency χ , so that $q_t = M_t/V_t$ and the job-finding rate is $\iota_t = M_t/U_t$.

Under the assumptions that the job-productivity draws are independent of firm productivity z and that hiring and firing costs are linear, all firms choose the same cutoff a_t^c and pay the same average wage $\tilde{w}_t$, and real marginal cost is φ_t/z .³ Firm-level optimization therefore yields three conditions that are common to all firms. Since a job is lost when its firm exits, firms discount with $\beta_{t,t+1}^F \equiv \beta_{t,t+1}(1 - \delta_{t+1})$, the household's stochastic discount factor times the probability that the firm survives into period $t + 1$.

³ See Appendix A for more details.

Job creation. Firms post vacancies until the expected cost of filling a vacancy equals the expected present discounted value of a filled job:

$$\frac{\kappa}{q_t} = E_t \left\{ \beta_{t,t+1}^F (1 - \bar{\lambda}) \left[(1 - H(a_{t+1}^c)) \left(\varphi_{t+1} \tilde{a}_{t+1} - \tilde{w}_{t+1} + \frac{\kappa}{q_{t+1}} \right) - H(a_{t+1}^c) F_{t+1} \right] \right\}. \quad (2)$$

Job destruction. At the cutoff, firms are indifferent between retaining and closing a job:

$$\varphi_t a_t^c = w_t(a_t^c) - F_t - \frac{\kappa}{q_t}. \quad (3)$$

Firms retain some jobs whose current revenue contribution falls short of the wage because retaining them avoids the firing cost F_t and preserves a continuation value of κ/q_t .

Wages. Wages are set by Nash bargaining with worker bargaining power η :

$$w_t(a) = \eta \left[\varphi_t a + \kappa \frac{V_t}{U_t} + F_t - (1 - \bar{\lambda})(1 - \iota_t) E_t \{ \beta_{t,t+1}^F F_{t+1} \} \right] + (1 - \eta)(h_p + b_t), \quad b_t = rr_t \tilde{w}_t. \quad (4)$$

The outside option consists of home production h_p and unemployment benefits b_t , which are a fraction rr_t of the average wage.

2.2 Firm entry and exit

Each firm sells a differentiated variety, and the elasticity of substitution between varieties is $\theta > 1$. Producers are heterogeneous in their productivity z , drawn from a Pareto distribution with lower bound z_{min} and shape parameter $k_p > \theta - 1$. Only firms above an export cutoff $z_{X,t}$ pay the fixed export cost f_X and sell abroad. Following standard practice, we use the Pareto assumption to summarize firm-level variables in terms of averages, denoted by a tilde.⁴

Entry. Entrants pay an entry cost $f_{E,t}$ and start producing in the next period. The cost has three components: a technological cost f_E , a congestion cost that rises with the ratio of entrants to producers as in Fasani et al. (2023), and the hiring cost of building up the workforce of an average incumbent:

$$f_{E,t} = f_E + \psi_E \left(\frac{N_{E,t}}{N_{D,t}} \right)^\varsigma + \kappa \frac{\tilde{l}_t + q_t \tilde{v}_t}{q_t}. \quad (5)$$

Free entry equates $f_{E,t}$ to the expected discounted value of an average firm, accounting for profits $\tilde{d}_{t+1}$ and continuation value $\tilde{e}_{t+1}$ if it survives and liquidation value lv_{t+1} if it exits:

$$f_{E,t} = \tilde{e}_t = E_t \left\{ \beta_{t,t+1} \left[(1 - \delta_{t+1})(\tilde{d}_{t+1} + \tilde{e}_{t+1}) + \delta_{t+1} lv_{t+1} \right] \right\}. \quad (6)$$

The stock of producers evolves according to $N_{D,t} = (1 - \delta_t)(N_{D,t-1} + N_{E,t-1})$.

Exit. At the beginning of each period, before production, every firm compares the value of continuing with the liquidation value

$$lv_t = (1 - \omega_0) f_E - \omega_1 \left(\frac{\delta_t}{1 - \delta_t} \right)^{\omega_2}. \quad (7)$$

⁴ See Appendix A for more details.

A share $1 - \omega_0$ of the technological entry cost can be recovered, e.g. through the resale of a license. The second term captures congestion in exit: when many firms leave at the same time, liquidation is less valuable. Here $\delta_t/(1 - \delta_t)$ is the number of exiting firms relative to producers, the counterpart of $N_{E,t}/N_{D,t}$ in (5). Firms with productivity below a cutoff $z_{D,t}$ exit, so that $\delta_t = 1 - (z_{min}/z_{D,t})^{k_p}$. The cutoff firm is indifferent:

$$lv_t = \bar{d}_{D,t} + E_t\{\beta_{t,t+1}(1 - \delta_{t+1})lv_{t+1}\}, \quad \bar{d}_{D,t} = \frac{k_p - \theta + 1}{k_p} \tilde{d}_{D,t}, \quad (8)$$

where $\tilde{d}_{D,t}$ are average profits from domestic sales. Two points are worth stressing. First, the marginal firm sells only at home ($z_{D,t} < z_{X,t}$), so its survival depends on *domestic* profits. Trade liberalization therefore raises exit through import competition, which takes market share from domestic producers and lowers their profits, while the gains from new export opportunities accrue to more productive firms. Second, labor market conditions affect exit through $\tilde{d}_{D,t}$, which measures average domestic profits net of wage payments, firing costs, and vacancy-posting costs. Labor market reforms can thus shift the exit cutoff, and the exit rate δ_t feeds back into job creation through the discount factor $\beta_{t,t+1}^F$ in (2).

2.3 How the shocks propagate

Trade costs. Lower τ_t reallocates market shares toward exporters and forces the least productive firms out. The resulting rise in average productivity raises the real value of a job's output, $\varphi_t \tilde{a}_t$, and hence the value of a match: firms post more vacancies (2) and close fewer jobs (3). Higher bargained wages (4) absorb part of the gain.

Unemployment benefits. A lower rr_t reduces the outside option and hence, for given tightness, wages (4). This raises firms' surplus from a given match, so that firms post more vacancies and close fewer jobs. Both trade liberalization and benefit cuts operate through match surplus. In our calibration, their joint reduction in unemployment is smaller than the sum of their separate reductions (Section 3.4).

Firing costs. Lower F_t makes closing jobs cheaper, so firms close more jobs in (3), while the expected cost of future separations falls and job creation (2) rises. The net effect on unemployment is ambiguous. In our calibration, the separation effect dominates. Trade liberalization and the benefit cut push the cutoff a_t^c further into the left tail of the job-productivity distribution, where fewer jobs are at risk, so that a firing-cost cut raises unemployment by less when it is combined with them (Section 3.4).

2.4 Calibration

The model is calibrated at a quarterly frequency. The initial steady state represents the German economy on the eve of the labor market reforms: targets for unemployment, job finding, and vacancy filling are based on 1993–2002 averages from Hartung et al. (2026), while the target for trade openness is its 2000–2002 average. Table 2 summarizes the calibration. We set the parameters in Panel A externally. The ten parameters in Panel B are chosen jointly such that the initial steady state matches ten targets. Although they are determined jointly, each parameter is most directly related to one target, which the table lists next to it and which we explain below. Panel C summarizes the shocks, which we describe in Section 3.1.

Table 2: Calibration

Parameter		Value	Target / note	Source
<i>A. Set externally</i>				
Discount factor	β	0.99	Real interest rate 4% p.a.	
Inverse EIS	γ	1	Log utility	
Matching elasticity	ϵ	0.5	Standard value	Hartung et al. (2026)
Worker bargaining power	η	0.5	Hosios condition	
Replacement rate	rr	0.67	Pre-reform	Jung et al. (2023)
Job productivity dispersion	σ_a	0.30	See text	
Elasticity of substitution	θ	5	Markup 25%	Deutsche Bundesbank (2017)
Pareto shape	k_p	5	Trade elasticity	Head and Mayer (2014)
Pareto lower bound	z_{min}	1	Normalization	
Technological entry cost	f_E	1	Normalization	
Entry congestion elasticity	ς	2	Convex congestion cost	Fasani et al. (2023)
Exit congestion elasticity	ω_2	1	Linear congestion cost	Fasani et al. (2023)
Bond adjustment cost	ξ	0.0025	Standard value	Cacciatore et al. (2016)
<i>B. Calibrated jointly to the initial steady state</i>				
Exogenous separation rate	$\bar{\lambda}$	0.0085	Share of exogenous separations 50%	Thomas and Zanetti (2009)
Firing cost	F	0.354	Unemployment rate 10.5% ^a	Hartung et al. (2026)
Home production	h_p	0.946	Job-finding rate 14.8%	Hartung et al. (2026)
Matching efficiency	χ	0.352	Vacancy-filling rate 83.8%	Hartung et al. (2026)
Vacancy cost	κ	0.502	Hiring cost 17.8% of wage ^b	Thomas and Zanetti (2009)
Non-recoverable share of f_E	ω_0	0.608	Firm exit rate 0.5%	Hauptmann et al. (2024)
Scale of exit congestion ^c	ω_1	39.4	Exit congestion costs 1% of GDP	Hauptmann et al. (2024)
Scale of entry congestion ^c	ψ_E	$1.26 \cdot 10^4$	Entry congestion costs 1.6% of GDP	Fasani et al. (2023)
Fixed export cost	f_X	0.0059	Share of exporters 20%	Etzel et al. (2013)
Iceberg trade cost	τ	1.153	Trade openness 59%	World Bank (2026)
<i>C. Shocks (Section 3.1)</i>				
Replacement rate	rr	0.663	Benefit cut alone lowers U by 22.6%	Hochmuth et al. (2021)
Firing cost	F	0.319	Extra hires in 2004–05; cut by 10%	Bauernschuster (2013)
Iceberg trade cost	τ	1.055	Openness 78% in 2011–2014	World Bank (2026)

Note: Quarterly frequency; Home and Foreign are symmetric in the initial steady state. Panel B: labor market targets are 1993–2002 averages; the quarterly job-finding and vacancy-filling rates correspond to a monthly job-finding rate of 5.2 percent and an average duration of 2.2 months to fill a vacancy. ^aGiven the job-finding rate, the unemployment rate pins down the total separation rate; net of exogenous separations and firm exit, this determines the rate of endogenous job destruction, which pins down F given σ_a . ^bExpected hiring cost per hire, κ/q , relative to the average wage. ^cThe congestion costs per exiting firm and per entrant amount to 20 and 32 percent of f_E . Panel C: values in the final steady state. Trade costs τ_t are chosen such that openness in the scenario with all three shocks matches the annual data for 2003–2008 and their 2011–2014 average in the final steady state.

Parameters set externally. Most of these parameters take standard values. The discount factor implies an annual real interest rate of 4 percent, utility is logarithmic, the matching elasticity is taken from Hartung et al. (2026), and the bargaining power of workers satisfies the Hosios condition. Before the reform, benefits replace 67 percent of the average wage (Jung et al., 2023). The elasticity of substitution $\theta = 5$ implies a markup of 25 percent, between estimates for German manufacturing (16 to 21 percent) and for the German economy as a whole (33 percent) (Christopoulou and Vermeulen, 2012; Deutsche Bundesbank, 2017). With Pareto-distributed productivity, the shape parameter k_p equals the elasticity of trade flows with respect to variable trade costs (Chaney, 2008). We set $k_p = 5$, which satisfies $k_p > \theta - 1$ and is in line with the estimates surveyed by Head and Mayer (2014). The elasticities of the entry and exit congestion costs follow Fasani et al. (2023). Normalizing z_{min} and the technological entry cost f_E to one is innocuous: a different value of f_E rescales the number of firms and the other firm-level costs, but leaves all results unchanged. The mean of log job productivity is zero. We discuss its dispersion σ_a below, together with firing costs.

Worker flows and job destruction. Given the job-finding rate of 14.8 percent per quarter, the unemployment rate of 10.5 percent implies a total separation rate of 1.71 percent per quarter in steady state.⁵ This corresponds to 0.57 percent per month, close to the 0.6 percent reported by Hartung et al. (2026), which we do not target. Workers separate for three reasons in our model. Following Thomas and Zanetti (2009), half of all separations are exogenous, which pins down $\bar{\lambda}$. Exogenous separations then account for 70 percent of separations in continuing firms, close to the 68 percent assumed by Cacciatore (2014). Firm exit, at a rate of 0.5 percent per quarter (Hauptmann et al., 2024), accounts for 29 percent of all separations, within the range of 25 to 55 percent for euro area countries reported by Cacciatore et al. (2016). The remaining 21 percent, a quarterly rate of $H(a^c) = 0.36$ percent, are due to endogenous job destruction. Given σ_a , this rate determines the cutoff a^c , and the job destruction condition (3) determines the firing cost F : higher F induces firms to retain more jobs with negative current profits, lowering the rate of endogenous job destruction.

Steady-state targets do not pin down σ_a and F separately. With a larger dispersion, the cutoff lies further in the left tail of the distribution, and higher firing costs are needed to sustain the same rate of job destruction. We set $\sigma_a = 0.30$, which implies firing costs of 10.5 percent of the quarterly wage, close to the 7 and 11 percent in Cacciatore and Fiori (2016) and Cacciatore et al. (2021), who also model firing costs as a pure resource cost.⁶ The dispersion also determines how strongly job destruction responds to changes in match surplus, and thereby how strongly unemployment responds to trade. With $\sigma_a = 0.30$, unemployment falls by 0.85 percentage points per 10 percentage points of openness in the long run, close to the empirical estimate (Section 3.2).⁷

Job creation. The vacancy-filling rate of 83.8 percent per quarter, which corresponds to an average duration of 2.2 months to fill a vacancy (Hartung et al., 2026), determines

⁵ In steady state, employment satisfies $L = (1 - \lambda^{tot})(L + \iota U)$, since new matches can also separate before they produce (see (1)). Hence $\lambda^{tot} = \iota U / (1 - U + \iota U)$.

⁶ Empirical measures of firing costs are higher because they include severance payments (Cacciatore and Fiori, 2016), which we do not model.

⁷ With $\sigma_a = 0.2$ (0.4), firing costs amount to 3 (16) percent of the quarterly wage, unemployment falls by 1.13 (0.69) percentage points per 10 percentage points of openness, compared to 0.75 in Felbermayr et al. (2011b), and the firing-cost cut raises unemployment by 0.21 (1.45) instead of 0.75 percentage points. The effect of the benefit cut does not change, since we calibrate its size to the empirical evidence (Section 3.1).

the number of vacancies needed to generate the targeted number of matches, and hence the matching efficiency χ . The vacancy cost κ is set such that the expected hiring cost per hire, κ/q , amounts to 17.8 percent of the quarterly wage, similar to Thomas and Zanetti (2009). Given κ , the job creation condition (2) determines the profit that a firm must earn on a match to recoup its hiring costs, and the wage equation (4) determines the outside option of workers that is consistent with this profit and with the targeted labor market tightness. Home production h_p is therefore pinned down by the job-finding rate: the higher h_p , the smaller the surplus of a match, the fewer vacancies firms post, and the lower the job-finding rate. Home production amounts to 28 percent of the average wage, similar to the 23 percent in Cacciatore and Fiori (2016).

Small surpluses and the value of unemployment. Home production and benefits together amount to 95 percent of average match productivity, close to the 98 percent that Amaral and Tasci (2016) obtain for Germany. This small surplus is not imposed but follows from the low labor turnover in Germany. With a separation rate of 1.7 percent per quarter, a match lasts almost 15 years on average, so that a firm recoups hiring costs of 17.8 percent of a quarterly wage with a flow profit of only 0.5 percent of the wage. Two implications matter for our results. First, small surpluses make unemployment sensitive to the outside option and to productivity. This is why a small cut in the replacement rate suffices to replicate the empirical effect of the Hartz IV reform (Section 3.1), and why benefits and trade interact strongly (Section 3.4). Second, benefits account for 70 percent of the flow value of unemployment. Since benefits are a transfer, the private value of unemployment, $h_p + b$, exceeds its social value, h_p , by a wide margin. This gap drives the welfare effects of the reforms (Section 3.3).

Firm dynamics and trade. The targeted exit rate determines the exit cutoff z_D . In steady state, the liquidation value must equal the value of continuing for the firm at this cutoff, (8), which yields $lv = 0.19f_E$. Given lv , equation (7) pins down the non-recoverable share of the entry cost, ω_0 : the more of its entry cost a firm can recover, the more firms exit. The scale parameters ω_1 and ψ_E are set such that the congestion costs of exit amount to 1 percent of GDP (Hauptmann et al., 2024) and those of entry to 1.6 percent of GDP (Fasani et al., 2023). Given trade costs, the fixed export cost f_X determines the export cutoff and thus the share of exporters, which is 20 percent (Etzel et al., 2013). Given the share of exporters, the iceberg trade cost τ determines how much each exporter sells abroad and thus trade openness, exports plus imports relative to GDP, which was 59 percent in 2000–2002 (World Bank, 2026, indicator NE.TRD.GNFS.ZS).

3 Counterfactual experiments

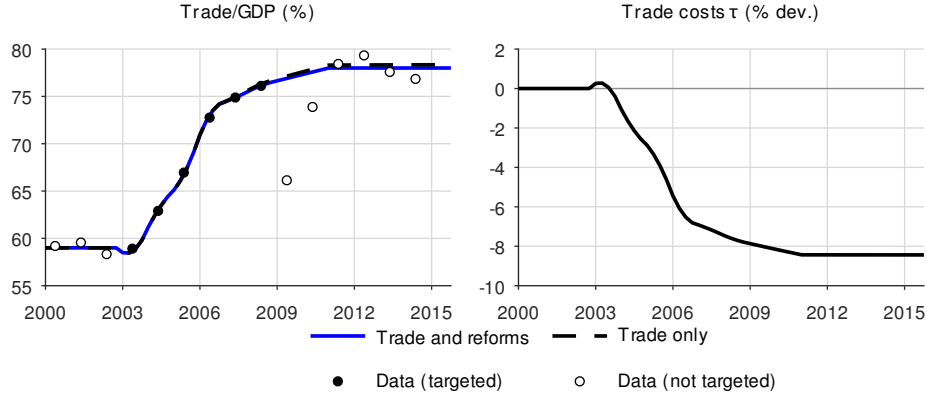
We use the model to answer three questions. First, how much did trade liberalization and the two labor market reforms each contribute to the decline in German unemployment, and what were their welfare effects? Second, how do labor market institutions shape the transmission of the trade shock, and how does the trade shock shape the effects of the reforms? Third, what role does endogenous firm exit play? Before turning to these questions, we describe the experiments and show that the model reproduces the key empirical elasticities.

3.1 Design of the experiments

The initial steady state is the calibrated pre-reform economy of Section 2.4, with an unemployment rate of 10.5 percent and trade openness of 59 percent. Period $t = 1$ is the first quarter of 2003. We consider three shocks.

Trade liberalization. Iceberg trade costs τ_t fall in both countries. Rather than assuming an ad hoc path, we choose the sequence $\{\tau_t\}$ such that the scenario with all three shocks, which we refer to as the real-world scenario, reproduces the observed rise in German trade openness. The annual averages of the model's quarterly openness match the data (World Bank, 2026) in every year from 2003 to 2008. We abstract from the 2009 Great Trade Collapse and let openness converge to its 2011–2014 average of 78 percent, which defines the final steady state. The implied trade costs fall by 8.5 percent, most of it between 2004 and 2006 (Figure 2). All scenarios with a trade shock use this same path of τ_t .

Figure 2: Trade openness and trade costs



Note: Left: trade openness (exports plus imports relative to GDP) in the real-world scenario and in the scenario with the trade shock only, and annual data (World Bank, 2026). Filled dots: targeted years (2003–2008), in which the annual averages of the model's quarterly openness equal the data. Open dots: not targeted individually; the averages over 2000–2002 and 2011–2014 define the initial and the final steady state. Right: the implied path of trade costs τ_t , used in all scenarios with a trade shock.

Unemployment benefits. Hartz IV mainly cut benefits for the long-term unemployed, whereas benefits in our model are a single replacement rate rr_t for all unemployed. Instead of mapping statutory benefit changes into rr_t , we therefore choose the size of the cut such that, in isolation, it lowers steady-state unemployment by 22.6 percent, the effect found by Hochmuth et al. (2021). This requires lowering the effective replacement rate from 67.0 to 66.3 percent. The required cut is small because match surpluses are small in our calibration, so that unemployment reacts strongly to the outside option (Section 2.4). Following Hartung et al. (2026), the cut is phased in linearly between 2006Q1 and 2009Q4: the shorter benefit duration applied to claims from February 2006 on, and transitional supplements cushioned the cut until 2010.

Firing costs. In January 2004, the threshold for dismissal protection was raised from five to ten employees for new hires. We model this as a cut in firing costs F_t in 2004Q1. Since our firing cost applies to all jobs, the cut is an economy-wide average. We set it

to 10 percent, so that the model roughly reproduces the additional hires estimated by Bauernschuster (2013) (Section 3.2).⁸

Information. Households and firms know the path of trade costs from 2003Q1 on. They learn about the labor market reforms in 2004Q1: the threshold change and the shorter benefit duration were enacted by the same law on 24 December 2003, and Bauernschuster (2013) documents that the threshold change was not anticipated. Until the end of 2003, agents therefore expect only the trade shock; in 2004Q1 they learn the full path of reforms. We solve the model with Dynare’s perfect-foresight solver with expectation errors. Appendix B shows that our results hardly change if agents know about the reforms from 2003Q1 on, following the announcement of Agenda 2010 in March 2003.

We simulate all seven combinations of the three shocks, each with endogenous exit and with an exogenous exit rate fixed at its initial level. Welfare is measured as the permanent proportional change in consumption μ that makes the household in the initial steady state as well off as in the respective scenario, including the transition: $\sum_{t \geq 1} \beta^t \ln((1 + \mu)C_{H,0}) = \sum_{t \geq 1} \beta^t \ln C_{H,t}$. To show how the gains build up over time, we also compute the consumption equivalent over the first T years, μ_T , by restricting both sums to the first $4T$ quarters. It measures the average gain over these years, not the part of the total gain realized by their end.

3.2 Model validation

Table 3 compares the model-implied effects of the shocks with empirical estimates. We target three moments: the effect of the benefit cut on unemployment, the hiring response to the firing-cost cut, and the path of trade openness (Figure 2).

Table 3: Model-implied effects and empirical evidence

	Model	Data	Source
UB cut alone: ΔU	−22.6% [†]	−22.6%	Hochmuth et al. (2021)
Trade: ΔU per +10 pp openness	−0.85 pp	−0.75 pp	Felbermayr et al. (2011b)
Firing-cost cut: hires, H1 2004 / H1 2005	0.13 / 0.18% [†]	0.11 / 0.17%	Bauernschuster (2013)
All shocks: U in 2011–14	7.5%	7.2%	Hartung et al. (2026)
All shocks: share of ΔU due to separations	43%	76%	Hartung et al. (2026)

Note: Endogenous exit. [†]Targeted. ΔU : long-run change in the unemployment rate. Hires: additional hires in the first half of 2004 and 2005 when only firing costs are cut, in percent of employment; data: estimates of 30,000 and 45,000 additional hires by Bauernschuster (2013), relative to about 26 million employees subject to social security contributions. All shocks: averages over 2011–2014 in the real-world scenario, compared to the initial steady state as in Table 2 of Hartung et al. (2026).

The model’s elasticities are in line with the evidence. Higher openness lowers long-run unemployment by 0.85 percentage points per 10 percentage points of openness, close to the estimate of 0.75 by Felbermayr et al. (2011b). The firing-cost cut raises hires by 0.13 percent of employment in the first half of 2004 and by 0.18 percent in the first half of 2005, close to the 0.11 and 0.17 percent implied by Bauernschuster (2013). Unlike in the data, separations also rise in the short run, by 7 percent in 2005. This is because the cut applies to all jobs in our model, whereas the reform did not affect workers hired before 2004. For the benefit cut, we target the 22.6 percent decline in unemployment estimated by Hochmuth et al. (2021). This corresponds to 2.4 percentage points, in the upper half of the range of 0.1 to 2.8 points found in earlier macroeconomic studies of Hartz IV (Launov

⁸ Appendix B reports results for a cut of 5 percent.

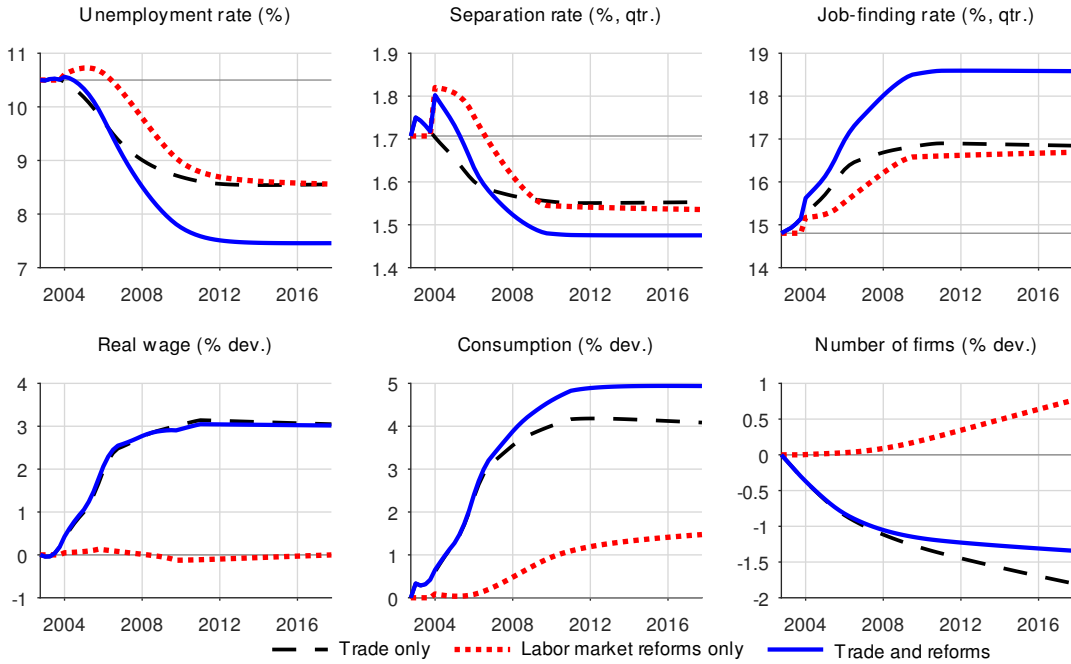
and Wälde, 2013; Krebs and Scheffel, 2013; Krause and Uhlig, 2012), but less than implied by Hartung et al. (2026), according to whom unemployment would have been 50 percent higher in 2014 without the reform.⁹

In the real-world scenario, unemployment falls to 7.5 percent on average in 2011–2014, compared to 7.2 percent in the data. The model thus accounts for 91 percent of the observed decline, although we do not target it. It also reproduces the direction of both worker flows: the separation rate falls by 14 percent and the job-finding rate rises by 26 percent, compared to 28 and 13 percent in the data. Lower separations account for 43 percent of the decline in unemployment.¹⁰ This is less than the 76 percent in the data, but far more than in models with exogenous separations, in which job finding accounts for the entire decline. The benefit cut, the reform analyzed by Hartung et al. (2026), works mainly through separations in our model as well (59 percent of its long-run effect). The share is lower for all shocks combined because trade liberalization works more through job creation and the firing-cost cut raises separations (Section 3.3).

3.3 The real-world scenario and its decomposition

Figure 3 shows the transition in the real-world scenario together with the scenarios with only the trade shock and only the labor market reforms. Tables 4 and 5 report the long-run effects and the welfare effects of all combinations of shocks.

Figure 3: Trade liberalization, labor market reforms, and both



Note: Home economy, endogenous exit. Thin grey horizontal lines: initial steady state (zero for variables in percent deviations). Separation and job-finding rates are quarterly.

⁹ Appendix B reports results for a larger benefit cut.

¹⁰ As in Hartung et al. (2026, Table 2), we evaluate steady-state unemployment, $U = \lambda^{tot} / [\lambda^{tot} + (1 - \lambda^{tot})\iota]$, at the average transition rates. The contribution of separations is the change in U when only λ^{tot} changes, relative to the change when both rates change.

Unemployment. In the real-world scenario, unemployment hardly changes until 2005 and then falls steadily, from 10.2 percent in 2005 to 8.3 percent in 2008 and 7.5 percent in 2011–2014. The decomposition in Figure 3 shows why the decline starts late. Trade liberalization lowers unemployment from 2004 on, as openness rises. The firing-cost cut, by contrast, raises separations as soon as it takes effect in 2004 and pushes unemployment up, and the replacement rate does not begin to fall until 2006. In the long run, the benefit cut is the most important single driver of the decline in unemployment: in isolation, it lowers unemployment by 2.4 percentage points and trade liberalization by 1.7 points, while the firing-cost cut raises it by 0.75 points. Yet trade liberalization alone lowers unemployment by more than half as much as all shocks combined (3.0 points).

Table 4: Long-run effects

	Unemployment rate (pp)	Separation rate (%)	Job-finding rate (%)	Number of firms (%)	Consumption (%)
UB cut	−2.37	−14.3	13.3	3.8	2.7
Firing-cost cut	0.75	9.0	1.1	−1.1	−0.8
UB + firing costs	−2.28	−11.5	15.6	3.7	2.6
Trade	−1.67	−7.9	11.5	−4.1	3.2
Trade + UB	−2.99	−15.1	22.4	−2.0	4.7
Trade + firing costs	−1.45	−3.7	13.5	−4.4	3.0
Trade + UB + firing costs	−3.00	−13.4	24.9	−2.0	4.7

Note: Home economy, endogenous exit. Differences between the final and the initial steady state; separation and job-finding rates are quarterly. Appendix Table B.1 reports further variables and the results with exogenous exit.

Worker flows. The shocks affect unemployment through different margins. The benefit cut lowers the outside option and raises the surplus of all matches: firms post more vacancies and close fewer jobs, and 59 percent of its effect on unemployment comes through lower separations.¹¹ Trade liberalization raises average productivity through firm selection and works somewhat more through job creation than through separations; at the same time, the exit of unproductive firms destroys jobs and dampens the decline in separations. The firing-cost cut raises separations by 9 percent but the job-finding rate by only 1 percent, so that unemployment rises. The margins also differ in timing (Figure 3). In the real-world scenario, the job-finding rate rises from the start, whereas the separation rate jumps in 2003, when firms exit in response to trade, and again in 2004, when the firing-cost cut takes effect; it falls below its initial level only in the second half of 2005.

Welfare. While the benefit cut matters most for unemployment, trade liberalization matters most for welfare (Table 5). Including the transition, it raises welfare by 3.5 percent in consumption equivalents, compared to 1.5 percent for the benefit cut, while the firing-cost cut lowers welfare by 0.4 percent. Trade works through higher productivity and more varieties, which also raise real wages by about 3 percent; the labor market reforms work mainly through higher employment and hardly affect real wages (Figure 3). Although trade and the benefit cut raise long-run consumption by similar amounts (3.2 and 2.7 percent, Table 4), the timing of their gains differs markedly. The gains from trade materialize quickly, as consumption rises from the start and even overshoots its long-run level while the number of firms adjusts: the consumption-equivalent gain amounts to 0.6 percent over the first two years and to 1.7 percent over the first five years. Since the replacement

¹¹ See also Appendix Table B.1.

rate does not begin to fall until 2006 and firms enter only gradually, the gains from the benefit cut build up slowly: over the first eight years, it yields a consumption-equivalent gain of 0.5 percent, compared with 1.5 percent over the full horizon. The firing-cost cut lowers welfare at all horizons, for reasons we discuss below. Over the first five years, the real-world scenario therefore raises welfare by hardly more than trade liberalization alone (1.8 versus 1.7 percent). Over the full horizon, the reforms add to these gains, but less than they would without the trade shock (Section 3.4).

Table 5: Welfare effects over different horizons

	First			Total
	2 years	5 years	8 years	
UB cut	0.09	0.24	0.48	1.48
Firing-cost cut	−0.08	−0.18	−0.23	−0.41
UB + firing costs	0.03	0.11	0.34	1.37
Trade	0.60	1.70	2.43	3.46
Trade + UB	0.65	1.84	2.70	4.26
Trade + firing costs	0.55	1.61	2.33	3.33
Trade + UB + firing costs	0.61	1.77	2.64	4.25

Note: Home economy, endogenous exit. Consumption-equivalent welfare gain in percent, relative to the initial steady state. First T years: consumption equivalent of the utility realized from 2003Q1 to the end of year T (2004, 2007, 2010). Total: entire transition and new steady state.

Firing costs and the layoff externality. Why does the firing-cost cut lower welfare even though firing costs are a pure resource cost in our model? The resources saved are negligible: spending on firing costs amounts to only 0.03 percent of GDP initially and even rises to 0.04 percent after the cut, because more jobs are destroyed. The welfare loss stems from lower employment, which falls by 0.8 percent and reduces GDP by 1.0 percent.

The underlying reason is a layoff externality (Blanchard and Tirole, 2008). Unemployment benefits are a transfer financed by lump-sum taxes, so the worker’s private value of unemployment, $h_p + b_t$, exceeds its social value, h_p . When firms and workers bargain over wages and decide on separations, they do not internalize that each separation raises benefit payments by all taxpayers. As a result, wages are too high, too many jobs are destroyed and too few are created. Firing costs act like a layoff tax that partly corrects this distortion, even though they waste resources. Cutting them aggravates the distortion, whereas cutting benefits removes it at its source. This explains why the benefit cut raises welfare and why adding the firing-cost cut reduces this gain. It also suggests that a layoff tax whose revenue finances unemployment benefits, as proposed by Blanchard and Tirole (2008), would dominate firing costs that are pure waste (see also Jung and Kuester, 2015). Our model adds a nuance to this argument: the productivity gains from trade offset part of the cost of cutting firing costs. In the presence of the trade shock, the firing-cost cut lowers welfare by only 0.1 instead of 0.4 percent, because trade raises match productivity and moves jobs away from the destruction margin, so that fewer jobs are destroyed when firing costs fall (Section 3.4). The benefit cut has a similar effect, as it also enlarges match surpluses.

3.4 Interaction between trade and labor market reforms

The effects of trade liberalization and the labor market reforms do not simply add up. In the long run, the real-world scenario lowers unemployment by 3.0 percentage points, less than the sum of the separate effects, 3.3 points. This modest gap hides large and offsetting interactions between the shocks. Table 6 reports the long-run effect of each shock conditional on the others; we discuss the columns with exogenous exit in Section 3.5. Figure 4 shows how the effects on unemployment build up over time. Since firms exit after trade liberalization and enter after the reforms only gradually, the effects take decades to reach their long-run values. Over the transition, trade therefore lowers unemployment by more, and the reforms by less, than in the long run.¹²

Table 6: The effect of each shock depends on the others

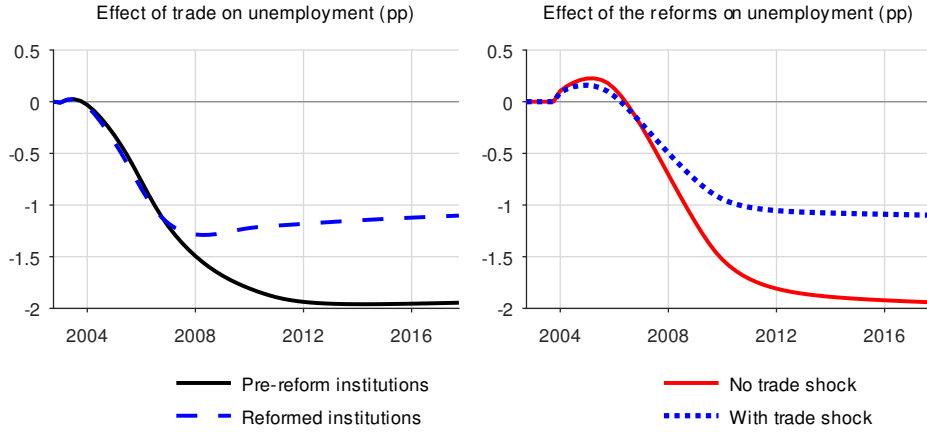
	ΔU (pp)		Welfare (CE, pp)	
	Endog. exit	Exog. exit	Endog. exit	Exog. exit
<i>Effect of: Trade liberalization</i>				
pre-reform institutions	−1.67	−2.96	3.46	4.83
with UB cut	−0.62	−1.46	2.78	4.11
with firing-cost cut	−2.20	−3.62	3.74	5.11
with both reforms	−0.72	−1.61	2.88	4.22
<i>Effect of: UB cut</i>				
no trade shock	−2.37	−2.31	1.48	1.32
with trade shock	−1.32	−0.81	0.81	0.60
<i>Effect of: Firing-cost cut</i>				
no trade shock	0.75	0.71	−0.41	−0.36
with trade shock	0.22	0.06	−0.13	−0.08
<i>Effect of: Both reforms</i>				
no trade shock	−2.28	−2.20	1.37	1.20
with trade shock	−1.32	−0.85	0.80	0.60

Note: Effect of a shock: difference between the scenario with and without this shock, holding the other shocks fixed (e.g., trade with UB cut: “trade + UB” minus “UB”). ΔU : change in the long-run unemployment rate in percentage points. Welfare: difference in consumption-equivalent welfare including the transition, in percentage points.

Benefits and trade are substitutes. Under pre-reform institutions, trade liberalization lowers long-run unemployment by 1.7 percentage points; after the benefit cut, it lowers unemployment by only 0.6 points. Conversely, the benefit cut lowers unemployment by 2.4 points without the trade shock, but only by 1.3 points with it. Welfare shows the same pattern: after the benefit cut, trade liberalization raises welfare by 2.8 instead of 3.5 percent. Both shocks work by raising the surplus of a match, the benefit cut by lowering the outside option and trade by raising productivity. When benefits are high, surpluses are small, and a given productivity gain raises them proportionally more, so that job creation responds strongly. Once the benefit cut has enlarged the surpluses, the same productivity gain stimulates job creation much less. Figure 4 shows that this interaction emerges as the benefit cut is phased in: the two lines in each panel are close until 2006 and then diverge. Under reformed institutions, trade lowers unemployment by at most 1.3 points, reached in 2008; under pre-reform institutions, its effect keeps growing until 2014, to 2.0 points.

¹² In 2011–2014, for instance, trade liberalization under pre-reform institutions lowers unemployment by 1.9 instead of 1.7 percentage points, and the reforms without the trade shock by 1.8 instead of 2.3 points.

Figure 4: Interaction between trade liberalization and labor market reforms



Note: Home economy, endogenous exit. Effect of a shock on the unemployment rate in percentage points: difference between the scenarios with and without the shock. Left: effect of trade liberalization under pre-reform institutions (trade only minus initial steady state) and under reformed institutions (real-world scenario minus reforms only). Right: effect of the labor market reforms without the trade shock (reforms only minus initial steady state) and with it (real-world scenario minus trade only). The gap between the two lines is the interaction between trade and the reforms and is the same in both panels.

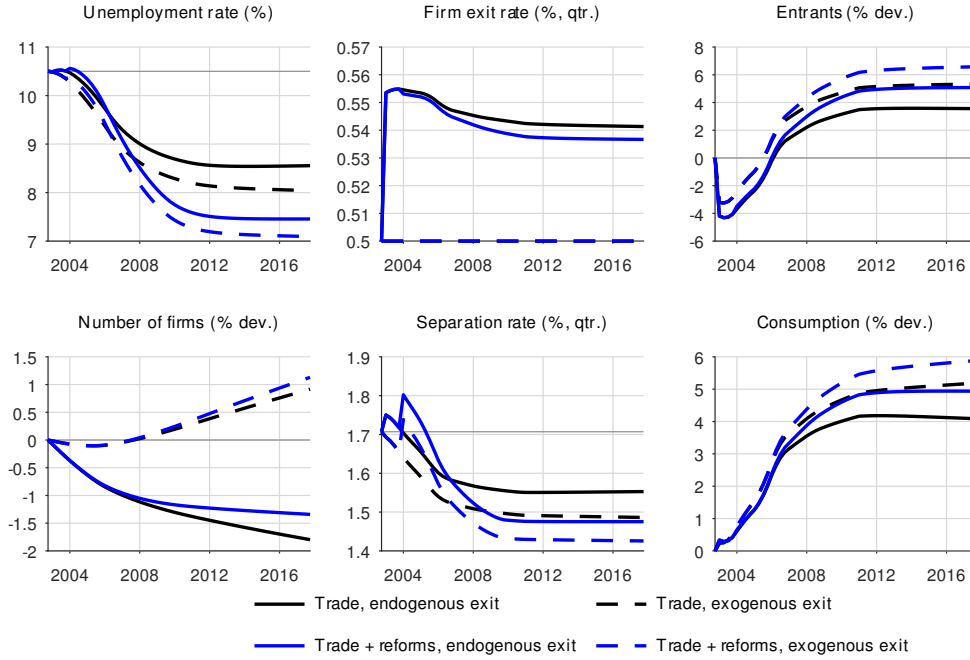
Firing costs and trade are complements. With lower firing costs, trade liberalization lowers unemployment by 2.2 percentage points instead of 1.7, and the firing-cost cut raises unemployment by only 0.2 points instead of 0.75 when combined with the trade shock. Its welfare loss shrinks from 0.4 to 0.1 percent. Lower firing costs raise separations because jobs at the destruction margin are no longer worth keeping. Trade raises match productivity and moves jobs away from this margin, so that fewer jobs are destroyed when firing costs fall. The complementarity is visible in the right panel of Figure 4 in 2004–2005, when firing costs are already lower but the replacement rate has not yet begun to fall: with the trade shock, the reforms raise unemployment by less.

These interactions answer our second question. First, labor market institutions shape the effects of trade. Under pre-reform institutions, trade liberalization lowers long-run unemployment by more than twice as much as under reformed institutions (1.7 versus 0.7 percentage points): generous benefits amplify the labor market effects of trade. Second, the trade shock shapes the effects of the reforms. In its presence, the reforms still lowered long-run unemployment and raised welfare, but by 1.3 instead of 2.3 percentage points and by 0.8 instead of 1.4 percent. An evaluation of the Hartz reforms that ignores the simultaneous trade shock would thus overstate their effects by about 70 percent. Neither the reforms nor the trade shock can therefore be evaluated in isolation.

3.5 The role of endogenous firm exit

Import competition forces the least productive firms out of the market, a channel that the workhorse models of Ghironi and Melitz (2005) and Cacciatore (2014) shut down by assuming a constant exit rate. To show that this assumption is not innocuous, we compare our model with a version in which the exit rate, and with it the productivity distribution of producers, is fixed at its initial level. All parameters and the initial steady state are the same in both versions, so that the comparison isolates the role of the exit margin. Figure 5 compares the transitions for the trade shock and the real-world scenario. Table 6 and Appendix Table B.1 report the long-run effects.

Figure 5: Endogenous versus exogenous firm exit



Note: Home economy. Solid lines: endogenous exit; dashed lines: exit rate fixed at its initial level. Black: trade liberalization only; blue: real-world scenario. Thin grey horizontal lines: initial steady state (zero for variables in percent deviations).

Trade liberalization triggers a wave of exits (Figure 5). As soon as the path of trade costs becomes known in 2003, the quarterly exit rate rises from 0.50 to 0.55 percent and settles at 0.54 percent in the long run. The number of firms declines steadily, by 1.8 percent until 2017 and by 4.1 percent in the long run. The reason is that the marginal firm sells only in the domestic market: import competition lowers its profits, while the gains from new export opportunities accrue to more productive firms. With an exogenous exit rate, the number of firms instead rises by 6.3 percent.

Endogenous exit substantially weakens the labor market gains from trade. It reduces the long-run decline in unemployment from 3.0 to 1.7 percentage points and the welfare gain from 4.8 to 3.5 percent. Fewer firms mean fewer varieties, so the real value of a job's output, $\varphi_t \tilde{a}_t$, rises by only 2.5 instead of 5.0 percent. Together with the higher exit rate, this weakens both labor market margins. Separations fall by only 8 instead of 15 percent, mostly because fewer jobs move away from the destruction margin and partly because exiting firms destroy jobs. The job-finding rate rises by only 12 instead of 22 percent, because a job is worth less and lasts less long. Entry and consumption also rise by less (Figure 5).

In isolation, the labor market reforms hardly affect the exit margin, and their effects on unemployment barely depend on it. The reason is free entry. The reforms change the profits of all firms alike, and entry adjusts until profits per firm are close to their initial level: after the benefit cut, the number of firms rises by 3.8 percent in the long run, whereas domestic profits per firm, which determine whether the marginal firm survives, change by only 0.3 percent. Trade, in contrast, shifts profits from domestic sales to exports: average domestic profits fall by 5.4 percent, although total profits per firm rise by 6.9 percent. Exit matters, however, for how the reforms interact with trade. Trade raises the exit rate by the same amount under pre-reform and reformed institutions. But productivity gains matter

less for job creation once the benefit cut has enlarged match surpluses (Section 3.4), so the unemployment cost of exit falls: the gap between endogenous and exogenous exit in the effect of trade on unemployment shrinks from 1.3 percentage points under pre-reform institutions to 0.8 points after the benefit cut. Lower firing costs slightly widen this gap, to 1.4 points.

Models with an exogenous exit rate therefore overstate the labor market and welfare gains from trade liberalization, and they overstate them most when labor market institutions are rigid in the sense of generous benefits. By the same token, they understate what the reforms achieved in the presence of the trade shock: with an exogenous exit rate, the reforms lower long-run unemployment by only 0.8 instead of 1.3 percentage points and raise welfare by 0.6 instead of 0.8 percent (Table 6). Accounting for endogenous exit is therefore essential to evaluate both the trade shock and the labor market reforms.

4 Conclusion

When Germany’s labor market turned around in the mid-2000s, far-reaching labor market reforms coincided with rapid trade integration. We have asked how much trade liberalization and the reforms each contributed to the decline in unemployment and to welfare, how they interacted, and what role endogenous firm exit played. To answer these questions, we have used a two-country model with heterogeneous firms, search frictions, firing costs, and endogenous firm exit, calibrated to Germany and disciplined by empirical evidence on the effects of the shocks.

Trade matters for understanding the German experience. Although the benefit cut is the largest single driver of the long-run decline in unemployment, trade liberalization alone lowers unemployment by more than half as much as all shocks combined and generates most of the welfare gains. The firing-cost cut raises unemployment and lowers welfare, because firing costs partly correct a layoff externality. Trade and the reforms do not simply add up: benefits and trade are substitutes, so that evaluations of the reforms that ignore the trade shock overstate their effects by about 70 percent. Endogenous exit matters for both: with a constant exit rate, the model overstates the gains from trade and understates what the reforms achieved. In this sense, the reforms tamed the dragon: under reformed institutions, unemployment responds much less to trade. Yet in Germany, trade integration lowered unemployment and raised welfare, and the reforms dampened rather than amplified these gains.

Our analysis highlights the complex trade-offs policymakers face when managing trade-induced labor market disruptions. Future research could study the optimal policy response to a trade shock, as Jung and Kuester (2015) do for recessions, and the optimal timing of reforms, whose effects depend on cyclical conditions (Cacciatore et al., 2021) and, as we show, on trade shocks. Since unemployment benefits also provide insurance, from which our model abstracts, the benefit cut may even lower welfare (Hochmuth et al., 2026); a heterogeneous-agent version of our model could show who gains and who loses. Finally, China’s move up the value chain may affect firm exit and unemployment differently from the symmetric trade liberalization in our model.

Declaration of generative AI and AI-assisted technologies in the writing process

During the preparation of this manuscript, we used ChatGPT (OpenAI) and Claude (Anthropic) for data and code preparation, for drafting and editing parts of the text, and for language polishing. All output was reviewed and edited by the authors, who take full responsibility for the final content.

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A Rest of the model

A.1 Firms' cost minimization and labor market conditions

Job productivity. Job-specific productivity a is log-normal with $\ln a \sim N(0, \sigma_a^2)$ and independent of firm productivity z . A firm that closes all jobs with $a < a_{z,t}^c$ closes the fraction $H(a_{z,t}^c)$ of its jobs, and the average productivity of the jobs it keeps is

$$\tilde{a}_{z,t} \equiv \frac{1}{1 - H(a_{z,t}^c)} \int_{a_{z,t}^c}^{\infty} a dH(a). \quad (\text{A.1})$$

Output of a firm with $l_{z,t}$ jobs is $y_{z,t} = z \tilde{a}_{z,t} l_{z,t}$ (see Cacciatore, 2014). Below we show that all firms choose the same cutoff a_t^c . The total separation rate, which includes job losses due to firm exit, is then $\lambda_t^{\text{tot}} \equiv 1 - (1 - \bar{\lambda})(1 - H(a_t^c))(1 - \delta_t)$.

Cost minimization. Firms are owned by households and discount costs using the household's stochastic discount factor $\beta_{t,s} \equiv \beta^{s-t} u_{C_{H,s}} / u_{C_{H,t}}$, where β is the subjective discount factor and $u_{C_{H,t}}$ denotes the marginal utility of consumption. Firms take the exit rate δ_t as given. A firm with productivity z chooses $\{l_{z,s}, v_{z,s}, a_{z,s}^c\}_{s=t}^{\infty}$ to minimize

$$E_t \left\{ \sum_{s=t}^{\infty} \beta_{t,s} \prod_{j=1}^{s-t} (1 - \delta_{t+j}) \left[\tilde{w}_{z,s} l_{z,s} + \kappa v_{z,s} + (1 - \bar{\lambda}) H(a_{z,s}^c) (l_{z,s-1} + q_{s-1} v_{z,s-1}) F_s \right] \right\} \quad (\text{A.2})$$

subject to the law of motion for employment (1) and the production function, where $\tilde{w}_{z,t} \equiv [1 - H(a_{z,t}^c)]^{-1} \int_{a_{z,t}^c}^{\infty} w_{z,t}(a) dH(a)$ is the average wage. Firms take the wage schedule as given. Let $\varphi_{z,t}$ be the multiplier on the production function (real marginal cost). Combining the first-order conditions for $l_{z,t}$ and $v_{z,t}$ yields the job-creation condition, while the first-order condition for $a_{z,t}^c$ yields the job-destruction condition:

$$\frac{\kappa}{q_t} = E_t \left\{ \beta_{t,t+1}^F (1 - \bar{\lambda}) \left[(1 - H(a_{z,t+1}^c)) \left(\varphi_{z,t+1} z \tilde{a}_{z,t+1} - \tilde{w}_{z,t+1} + \frac{\kappa}{q_{t+1}} \right) - H(a_{z,t+1}^c) F_{t+1} \right] \right\}, \quad (\text{A.3})$$

$$\varphi_{z,t} z a_{z,t}^c = w_{z,t}(a_{z,t}^c) - F_t - \frac{\kappa}{q_t}, \quad (\text{A.4})$$

with $\beta_{t,t+1}^F \equiv \beta_{t,t+1} (1 - \delta_{t+1})$. By job creation, the continuation value of a match equals κ/q_t . The value to the firm of a match with productivity a is therefore $J_{z,t}(a) = \varphi_{z,t} z a - w_{z,t}(a) + \kappa/q_t$, and job destruction states that $J_{z,t}(a_{z,t}^c) = -F_t$.

Wage bargaining. Since a firm that closes a job pays F_t , the firm's surplus is $S_{z,t}^F(a) = J_{z,t}(a) + F_t$. Let $S_{z,t}^W(a)$ denote the surplus of a match to the worker. The worker's surplus satisfies

$$S_{z,t}^W(a) = w_{z,t}(a) - h_p - b_t + (1 - \bar{\lambda})(1 - \iota_t) E_t \left\{ \beta_{t,t+1}^F (1 - H(a_{z,t+1}^c)) \tilde{S}_{z,t+1}^W \right\}, \quad (\text{A.5})$$

where $\tilde{S}_{z,t+1}^W$ is the average surplus of the jobs that are kept. Nash bargaining, $\eta S_{z,t}^F(a) = (1 - \eta) S_{z,t}^W(a)$, together with job creation yields the wage equation (4) with $\varphi_{z,t} z$ in place of φ_t .

Symmetry across firms. Under the assumptions that the job-productivity draws are independent of firm productivity z and that hiring and firing costs are linear, the outside

option and thus the cutoff are the same for all firms: $a_{z,t}^c = a_t^c$. Therefore, they pay the same average wage, $\tilde{w}_{z,t} = \tilde{w}_t$, and their marginal cost is inversely proportional to z : $\varphi_{z,t} = \varphi_t/z$. The conditions above then reduce to (2)–(4) in the main text.

A.2 Pricing and the export decision

Following Ghironi and Melitz (2005), prices are flexible and set in local currency, and the law of one price holds up to trade costs. Exporters ship $\tau_t \geq 1$ units for each unit that arrives (iceberg costs) and pay a fixed cost f_X per period in units of the final good. Prices are a markup $\theta/(\theta - 1)$ over marginal cost, where $\theta > 1$ is the elasticity of substitution between varieties. Optimal real prices relative to the destination market's price index are

$$\rho_{D,t}(z) = \frac{\theta}{\theta - 1} \frac{\varphi_t}{z}, \quad \rho_{X,t}(z) = \frac{\tau_t}{RER_t} \rho_{D,t}(z), \quad (\text{A.6})$$

where the real exchange rate RER_t is the price of Foreign consumption in units of Home consumption. Demand for a variety is $y_{D,t}(z) = \rho_{D,t}(z)^{-\theta} Y_t$ at home and $y_{X,t}(z) = \rho_{X,t}(z)^{-\theta} Y_t^*$ abroad, where Y_t and Y_t^* denote aggregate demand.

Profits from domestic sales consist of the markup revenue plus the firm's labor rent, i.e. the difference between output valued at marginal cost and actual expenditure on wages, firing, and vacancy posting:

$$d_{D,t}(z) = \frac{1}{\theta} \rho_{D,t}(z)^{1-\theta} Y_t + \pi_t^L(z), \quad \pi_t^L(z) \equiv \left(\varphi_t \tilde{a}_t - \tilde{w}_t - \frac{H(a_t^c)}{1 - H(a_t^c)} F_t \right) l_t(z) - \kappa v_t(z). \quad (\text{A.7})$$

Since a firm's employment and vacancies are proportional to $z^{\theta-1}$, so are its labor rent and its domestic profits. Profits from exporting are

$$d_{X,t}(z) = \frac{RER_t}{\theta} \rho_{X,t}(z)^{1-\theta} Y_t^* - f_X. \quad (\text{A.8})$$

Because of the fixed cost, only firms above the cutoff $z_{X,t} = \inf\{z : d_{X,t}(z) > 0\}$ export.

A.3 Firm averages

Firms produce if $z \geq z_{D,t}$ and export if $z \geq z_{X,t}$. Average productivities of producers and exporters are

$$\tilde{z}_{j,t} \equiv \left[\frac{1}{1 - G(z_{j,t})} \int_{z_{j,t}}^{\infty} z^{\theta-1} dG(z) \right]^{\frac{1}{\theta-1}}, \quad j \in \{D, X\}, \quad (\text{A.9})$$

where $G(z) = 1 - (z_{\min}/z)^{k_p}$ is the Pareto c.d.f. The exit rate and the share of exporters follow from the cutoffs:

$$\delta_t = G(z_{D,t}) = 1 - \left(\frac{z_{\min}}{z_{D,t}} \right)^{k_p}, \quad \frac{N_{X,t}}{N_{D,t}} = \left(\frac{\tilde{z}_{D,t}}{\tilde{z}_{X,t}} \right)^{k_p}. \quad (\text{A.10})$$

Averages are evaluated at the average productivities: $\tilde{\rho}_{D,t} \equiv \rho_{D,t}(\tilde{z}_{D,t})$, $\tilde{\rho}_{X,t} \equiv \rho_{X,t}(\tilde{z}_{X,t})$, $\tilde{d}_{D,t} \equiv d_{D,t}(\tilde{z}_{D,t})$, $\tilde{d}_{X,t} \equiv d_{X,t}(\tilde{z}_{X,t})$, and average total profits are $\tilde{d}_t = \tilde{d}_{D,t} + (N_{X,t}/N_{D,t}) \tilde{d}_{X,t}$. The zero-profit condition for the marginal exporter, $d_{X,t}(z_{X,t}) = 0$, implies

$$\tilde{d}_{X,t} = f_X \frac{\theta - 1}{k_p - \theta + 1}. \quad (\text{A.11})$$

Analogously, since domestic profits are proportional to $z^{\theta-1}$, the Pareto distribution implies that the domestic profits of the marginal producer are a fraction $(z_{D,t}/\bar{z}_{D,t})^{\theta-1} = (k_p - \theta + 1)/k_p$ of the average; this gives $\bar{d}_{D,t}$ in the exit condition (8). Average productivity across all of Home's sales (domestic and exported) is

$$\tilde{z}_t = \left[\bar{z}_{D,t}^{\theta-1} + \frac{N_{X,t}}{N_{D,t}} \left(\frac{\tilde{z}_{X,t}}{\tau_t} \right)^{\theta-1} \right]^{\frac{1}{\theta-1}}. \quad (\text{A.12})$$

A.4 Households

Each country is populated by a representative household with a unit-sized continuum of members who fully insure each other's consumption (Andolfatto, 1996; Merz, 1995). Employment is determined by matching: employed members earn wages, while unemployed members receive benefits and engage in home production. The household maximizes

$$E_t \left\{ \sum_{s=t}^{\infty} \beta^{s-t} \frac{C_{H,s}^{1-\gamma}}{1-\gamma} \right\}, \quad C_{H,t} \equiv C_t + h_p U_t, \quad (\text{A.13})$$

where $C_{H,t}$ is total consumption, C_t market consumption, h_p home production per unemployed worker, $U_t = 1 - L_t$, and γ the inverse elasticity of intertemporal substitution (EIS). Market consumption is a CES aggregate over the available varieties Ω_t :

$$C_t = \left[\int_{\omega \in \Omega_t} c_t(\omega)^{\frac{\theta-1}{\theta}} d\omega \right]^{\frac{\theta}{\theta-1}}, \quad P_t = \left[\int_{\omega \in \Omega_t} p_t(\omega)^{1-\theta} d\omega \right]^{\frac{1}{1-\theta}}. \quad (\text{A.14})$$

Households trade Home bonds B_t and Foreign bonds $B_{*,t}$, which pay real returns r_t and r_t^* between $t-1$ and t . Quadratic bond adjustment costs ensure a determinate steady state (Schmitt-Grohé and Uribe, 2003). The flow budget constraint is

$$C_t + B_{t+1} + RER_t B_{*,t+1} + \frac{\xi}{2} B_{t+1}^2 + \frac{\xi}{2} RER_t B_{*,t+1}^2 = (1 + r_t) B_t + (1 + r_t^*) RER_t B_{*,t} + \tilde{w}_t L_t + b_t U_t + T_t^f + T_t^B - T_t^g. \quad (\text{A.15})$$

T_t^f are net transfers from firms: dividends of producing firms minus entry costs plus liquidation values of exiting firms. $T_t^B = \frac{\xi}{2} (B_{t+1}^2 + RER_t B_{*,t+1}^2)$ is a lump-sum rebate of bond adjustment costs, taken as given by households. $T_t^g = b_t U_t$ are lump-sum taxes that finance unemployment benefits. The Euler equations for bonds are

$$1 + \xi B_{t+1} = (1 + r_{t+1}) E_t \{ \beta_{t,t+1} \}, \quad 1 + \xi B_{*,t+1} = (1 + r_{t+1}^*) E_t \left\{ \beta_{t,t+1} \frac{RER_{t+1}}{RER_t} \right\}. \quad (\text{A.16})$$

A.5 Aggregation and market clearing

Aggregate employment and vacancies are

$$L_t = N_{D,t} \tilde{l}_t, \quad V_t = (N_{D,t} + N_{E,t}) \tilde{v}_t + N_{E,t} \frac{\tilde{l}_t}{q_t}. \quad (\text{A.17})$$

Labor market clearing requires that employment covers production for the domestic and the export market:

$$\tilde{a}_t L_t = \frac{\tilde{\rho}_{D,t}^{-\theta} Y_t}{\tilde{z}_{D,t}} N_{D,t} + \tau_t \frac{\tilde{\rho}_{X,t}^{-\theta} Y_t^*}{\tilde{z}_{X,t}} N_{X,t}. \quad (\text{A.18})$$

The price index, written in average terms, is

$$1 = N_{D,t} \tilde{\rho}_{D,t}^{1-\theta} + N_{X,t}^* (\tilde{\rho}_{X,t}^*)^{1-\theta}. \quad (\text{A.19})$$

Aggregate demand consists of market consumption, entry costs, fixed export costs, vacancy costs and firing costs (a resource cost, not a transfer to workers), net of the liquidation values returned to households:

$$Y_t = C_t + N_{E,t} \left[f_E + \psi_E \left(\frac{N_{E,t}}{N_{D,t}} \right)^\varsigma \right] + N_{X,t} f_X + \kappa V_t + \frac{H(a_t^c)}{1 - H(a_t^c)} L_t F_t - \frac{\delta_t}{1 - \delta_t} N_{D,t} l v_t. \quad (\text{A.20})$$

Bond market clearing requires $B_{t+1} + B_{t+1}^* = 0$ and $B_{*,t+1} + B_{*,t+1}^* = 0$. Combining the budget constraints with market clearing yields the current-account identity:

$$B_{t+1} - B_t + RER_t (B_{*,t+1} - B_{*,t}) = CA_t \equiv r_t B_t + RER_t r_t^* B_{*,t} + TB_t, \quad (\text{A.21})$$

where the trade balance is $TB_t \equiv RER_t N_{X,t} \tilde{\rho}_{X,t}^{1-\theta} Y_t^* - N_{X,t}^* (\tilde{\rho}_{X,t}^*)^{1-\theta} Y_t$.

GDP and trade openness. GDP is the sum of labor income and firm profits, $GDP_t = \tilde{w}_t L_t + N_{D,t} \tilde{d}_t$. Trade openness, which we match to the data, is the sum of exports and imports relative to GDP:

$$\frac{RER_t N_{X,t} \tilde{\rho}_{X,t}^{1-\theta} Y_t^* + N_{X,t}^* (\tilde{\rho}_{X,t}^*)^{1-\theta} Y_t}{GDP_t}. \quad (\text{A.22})$$

B Additional results

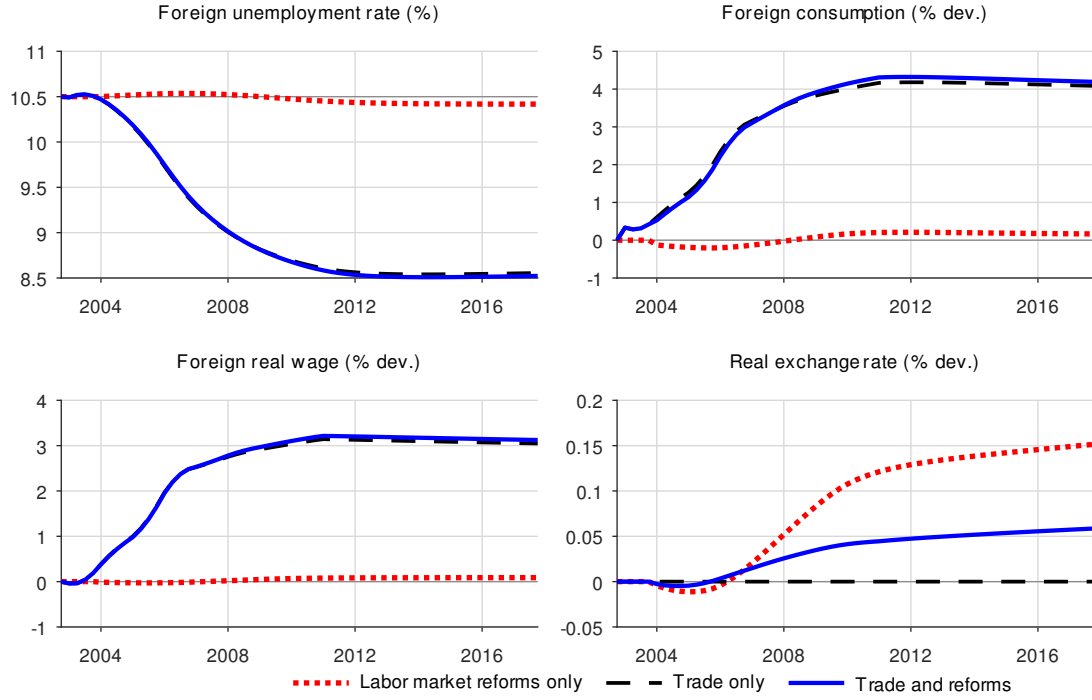
Figure B.1 shows the transition in Foreign. Foreign gains as much as Home from the symmetric trade shock. Home's labor market reforms have small positive spillovers on Foreign: Foreign unemployment falls slightly and welfare rises by 0.1 percent, as imports from Home become cheaper.

Table B.1 reports all long-run effects, including those with exogenous exit and the welfare effects on Foreign.

Table B.2 shows how the main results change under alternative assumptions: agents learn about the reforms already in 2003Q1; the firing-cost cut is 5 instead of 10 percent; the benefit cut lowers unemployment by 30 percent as in Hartung et al. (2026) instead of 22.6 percent; trade costs fall linearly between 2003 and 2006 instead of following the data; and initial openness is set to its 1993–2002 average of 49 percent, which attributes the entire increase in openness since the 1990s to the trade shock.

The timing of information hardly matters: if agents learn about the reforms already in 2003Q1, all long-run effects are unchanged and welfare changes by at most 0.01 percentage points. Halving the firing-cost cut roughly halves its effects on unemployment (0.33 instead of 0.75 percentage points) and on welfare (−0.19 instead of −0.41 percent), while the other results barely change. A benefit cut that lowers unemployment by 30 percent reduces long-run unemployment in the real-world scenario to 6.9 percent, slightly below the 7.2 percent observed in 2011–2014, and raises the welfare gain from the benefit cut to 2.1 percent. It also strengthens the substitutability between benefits and trade: under reformed institutions, trade liberalization then lowers unemployment by only 0.4 percentage points. A linear decline in trade costs between 2003 and 2006 leaves all long-run effects unchanged but brings the gains from trade forward, which raises their welfare value from 3.5 to 3.7

Figure B.1: Spillovers to Foreign



Note: Endogenous exit. Thin grey horizontal lines: initial steady state (zero for variables in percent deviations).

Table B.1: Long-run effects and welfare: all scenarios

	ΔU	Sep.	Find.	Sep. share	$\Delta\delta$	Firms	C	Welfare (CE, %)	
	(pp)	(%)	(%)	(%)	(bp)	(%)	(%)	Home	Foreign
<i>Endogenous exit</i>									
UB cut	-2.37	-14.3	13.3	59	-0.21	3.8	2.7	1.48	0.11
Firing-cost cut	0.75	9.0	1.1	114	0.04	-1.1	-0.8	-0.41	-0.03
UB + firing costs	-2.28	-11.5	15.6	49	-0.22	3.7	2.6	1.37	0.10
Trade	-1.67	-7.9	11.5	45	3.72	-4.1	3.2	3.46	3.46
Trade + UB	-2.99	-15.1	22.4	49	3.54	-2.0	4.7	4.26	3.53
Trade + firing costs	-1.45	-3.7	13.5	24	3.73	-4.4	3.0	3.33	3.45
Trade + UB + firing costs	-3.00	-13.4	24.9	43	3.53	-2.0	4.7	4.25	3.53
<i>Exogenous exit</i>									
UB cut	-2.31	-14.0	12.8	59	0.00	3.2	2.5	1.32	0.16
Firing-cost cut	0.71	8.8	1.2	117	0.00	-0.9	-0.7	-0.36	-0.04
UB + firing costs	-2.20	-11.1	15.0	49	0.00	3.1	2.4	1.20	0.15
Trade	-2.96	-15.0	22.0	49	0.00	6.3	7.2	4.83	4.83
Trade + UB	-3.77	-18.8	31.5	49	0.00	7.5	8.1	5.43	4.91
Trade + firing costs	-2.90	-12.7	24.3	42	0.00	6.3	7.1	4.75	4.82
Trade + UB + firing costs	-3.81	-17.8	34.1	45	0.00	7.5	8.1	5.43	4.91

Note: Home economy, except for the welfare of Foreign. Differences between the final and the initial steady state; separation (Sep.), job-finding (Find.) and exit (δ) rates are quarterly. Sep. share: contribution of the change in the separation rate to the change in steady-state unemployment, computed as in Section 3.2; it exceeds 100 percent when the job-finding rate moves unemployment in the opposite direction. Welfare: consumption-equivalent change including the transition. With exogenous exit, the exit rate is fixed at its initial level.

Table B.2: Robustness

	Baseline	Reforms known 2003Q1	F cut 5%	UB effect −30%	Linear τ 2003–06	Initial openness 49%
<i>Long-run unemployment</i>						
ΔU , UB cut alone (%)	−22.6	−22.6	−22.6	−30.0	−22.6	−22.6
ΔU per +10 pp openness (pp)	−0.85	−0.85	−0.85	−0.85	−0.85	−0.69
ΔU , firing-cost cut alone (pp)	0.75	0.75	0.33	0.75	0.75	0.76
U , all shocks (%)	7.50	7.50	7.50	6.90	7.50	7.32
Trade effect on U , pre-reform (pp)	−1.67	−1.67	−1.67	−1.69	−1.67	−2.04
Trade effect on U , reformed (pp)	−0.72	−0.72	−0.67	−0.42	−0.72	−0.90
<i>Welfare (CE, %)</i>						
UB cut alone	1.48	1.49	1.48	2.06	1.48	1.50
Firing-cost cut alone	−0.41	−0.42	−0.19	−0.41	−0.41	−0.42
Trade alone	3.46	3.46	3.46	3.49	3.69	4.99
All shocks	4.25	4.25	4.26	4.68	4.48	5.66

Note: Endogenous exit. Trade effect on U , reformed: real-world scenario minus reforms only. Welfare: consumption-equivalent change including the transition. In the last column, the benefit cut is recalibrated to the 22.6 percent target and trade costs fall linearly, since the data path of openness starts from 59 percent.

percent. Finally, starting from the 1993–2002 average openness of 49 percent attributes a larger trade shock to the period after 2003. Trade liberalization then lowers unemployment by 2.0 percentage points and raises welfare by 5.0 percent; unemployment falls by 0.69 instead of 0.85 percentage points per 10 percentage points of openness, and long-run unemployment in the real-world scenario reaches 7.3 percent.

Online Appendix

C Motivating evidence

This section presents the details behind the cross-country correlates discussed in the introduction of this paper. Potential interaction effects of trade and labor market institutions on unemployment are estimated for a large set of developed and developing countries¹. The results reveal a clear pattern: the marginal effect of trade openness on unemployment depends on the degree of labor market flexibility. Trade openness is associated with higher unemployment where labor markets are extremely rigid, and with lower unemployment where they are flexible.

The dependent variable in our fixed effects panel regression approach is unemployment (as a percentage of the total labor force), and our main explanatory variable is merchandise trade openness. To capture institutional heterogeneity, we interact trade openness with the Fraser Institute’s labor market regulation index, which measures labor market flexibility on a scale from 0 to 10. Higher values indicate more flexible labor markets characterized by weaker employment protection legislation and less stringent hiring and firing regulations.² The regression specification takes the form:

$$U_{it} = \alpha_i + \beta_1 \text{Trade}_{it} + \beta_2 \text{Reg}_{it} + \beta_3 (\text{Trade}_{it} \times \text{Reg}_{it}) + \gamma \text{Year}_t + \varepsilon_{it}, \quad (\text{C.1})$$

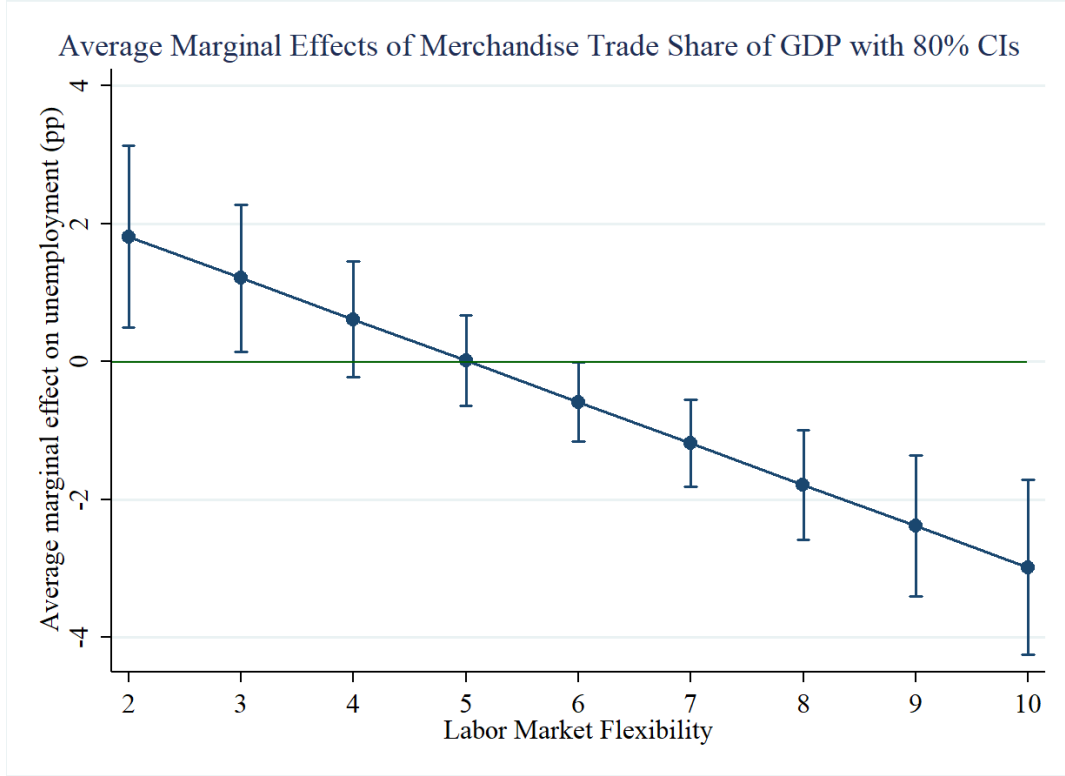
where U_{it} denotes unemployment in country i and year t , Trade_{it} is merchandise trade openness (in logs), Reg_{it} is the labor market regulation index, and α_i is a country fixed effect. The country fixed effects absorb all time-invariant differences between countries, and the linear term Year_t controls for a common time trend. Standard errors are bootstrapped with 1,000 replications.

Figure C.1 presents the results. The regression table shows that the coefficient associated with merchandise trade is positive and statistically significant ($\beta_1 = 3.010$, s.e. = 1.450, $p < 0.05$), and the interaction term coefficient is negative and highly significant ($\beta_3 = -0.599$, s.e. = 0.226, $p < 0.01$). This is a first hint that the marginal effect of trade openness on unemployment is critically dependent on labor market flexibility. However, the marginal effect must be computed depending on the level of labor market flexibility. We do this and compute significance levels for the joint effect dependent on different levels of labor market flexibility. The graph plots the average marginal effects of openness across different levels of labor market flexibility with 80% confidence intervals. At low levels of flexibility (index values around 2–3), trade openness is associated with increased unemployment. However, as labor market flexibility increases, this effect diminishes and eventually becomes negative, suggesting that trade openness reduces unemployment in countries with flexible labor markets. The effect is significant at the 80% level for index values above 6, which is close to the mean level of labor market flexibility (6.277, see the following descriptive statistics) in the sample.

¹ The panel contains 151 countries observed annually from 2000 to 2020 (2,937 country-year observations).

² The index does not cover unemployment benefits. Besides hiring and firing regulations and mandated dismissal costs, it measures centralized collective bargaining, the regulation of working hours, minimum wages, and conscription. The pattern in Figure C.1 therefore relates to the firing-cost channel of our model, in which lower firing costs strengthen the unemployment-reducing effect of trade (Section 3.4).

Figure C.1: Interaction effects of trade and labor market institutions on unemployment



Variable	Coefficient	Std. Error
Log merchandise trade (% of GDP)	3.0102*	1.4500
Labor market flex.	2.3960**	0.9353
Trade $\times$ Labor reg.	-0.5991**	0.2263
Year	-0.0477*	0.0192
Constant	91.8196*	39.2262
Country Fixed-Effects	Yes	

Note: Bootstrap standard errors (1,000 replications) clustered by country. * $p \leq 0.05$, ** $p \leq 0.01$. Dependent variable: Unemployment (% of total labor force). N (observations) = 2,937; N (groups) = 151; Obs. per group (min/avg/max) = 11/19.5/21. R^2 (within) = 0.0316; R^2 (between) = 0.0094; R^2 (overall) = 0.0019. Wald $\chi^2(4) = 12.42$ ($p = 0.0145$).

C.1 Data and program

This section describes the dataset used in the empirical analysis. The data form an unbalanced country-level panel covering the years 2000 to 2020. The unit of observation is a country-year. The panel contains information on international trade openness, unemployment, and labor market regulation. Data sources are described in Section C.2.

The final estimation sample consists of $N = 151$ countries observed over a maximum of $T = 21$ annual periods, which yields 2,937 country-year observations. The time dimension is measured at annual frequency with a step of one year (Stata: $\Delta(\text{Year}) = 1$ unit), and the span of the panel is 21 periods. The combination of country identifier and year uniquely identifies each observation, so there are no duplicate country-year pairs. The country identifiers range from 3 to 221, which reflects the numbering of the original, larger country list from which the sample was drawn. The identifiers are therefore not consecutive due to missings in the data.

Exclusion of Countries with Short Observation Spans

To ensure that every country contributes a sufficiently long time series, all countries for which information is available for fewer than 10 years were excluded from the data. This rule serves two purposes. First, it ensures that within-country variation is identified from a reasonable number of periods, which matters because the analysis relies on country fixed effects. Second, it avoids giving weight to countries whose few observations may reflect temporary data coverage rather than a stable reporting history. Applying the rule leaves a minimum of $T_i = 11$ observations per country in the final sample (see Table C.2). The cut-off is thus binding, and no country in the estimation sample has fewer than 11 annual observations.

We verified that this sample restriction does not drive the results. Re-estimating all specifications including the countries with fewer than 10 years of data leaves the results robust and qualitatively unchanged, with the same signs and substantively similar magnitudes and significance levels for the main coefficients. The restriction is therefore a data-quality choice and not a source of the findings. The following countries are included in the regression:

Table C.1: Countries in the sample with ISO 3166-1 alpha-3 codes and number of observations

ISO	Country	T_i	ISO	Country	T_i
AGO	Angola	16	KHM	Cambodia	11
ALB	Albania	21	KOR	Korea, Rep.	21
ARE	United Arab Emirates	21	KWT	Kuwait	21
ARG	Argentina	21	LBN	Lebanon	11
ARM	Armenia	17	LKA	Sri Lanka	21
AUS	Australia	21	LSO	Lesotho	16
AUT	Austria	21	LTU	Lithuania	21
AZE	Azerbaijan	17	LUX	Luxembourg	21
BDI	Burundi	21	LVA	Latvia	21
BEL	Belgium	21	MAR	Morocco	21
BEN	Benin	21	MDA	Moldova	16
BFA	Burkina Faso	16	MDG	Madagascar	21
BGD	Bangladesh	21	MEX	Mexico	21
BGR	Bulgaria	21	MKD	North Macedonia	19

Continued on next page

Table C.1 continued

ISO	Country	T_i	ISO	Country	T_i
BHR	Bahrain	18	MLI	Mali	21
BHS	Bahamas	15	MLT	Malta	21
BIH	Bosnia and Herzegovina	16	MNE	Montenegro	15
BLZ	Belize	17	MNG	Mongolia	17
BOL	Bolivia	21	MOZ	Mozambique	19
BRA	Brazil	21	MRT	Mauritania	16
BRB	Barbados	16	MUS	Mauritius	21
BRN	Brunei Darussalam	11	MWI	Malawi	21
BWA	Botswana	21	MYS	Malaysia	21
CAF	Central African Republic	21	NAM	Namibia	21
CAN	Canada	21	NER	Niger	21
CHE	Switzerland	21	NGA	Nigeria	21
CHL	Chile	21	NIC	Nicaragua	21
CHN	China	21	NLD	Netherlands	21
CIV	Côte d'Ivoire	21	NOR	Norway	21
CMR	Cameroon	21	NPL	Nepal	21
COD	Congo, Dem. Rep.	21	NZL	New Zealand	21
COG	Congo, Rep.	21	OMN	Oman	21
COL	Colombia	21	PAK	Pakistan	21
CPV	Cabo Verde	11	PAN	Panama	21
CRI	Costa Rica	21	PER	Peru	21
CYP	Cyprus	18	PHL	Philippines	21
CZE	Czechia	21	PNG	Papua New Guinea	21
DEU	Germany	21	POL	Poland	21
DNK	Denmark	21	PRT	Portugal	21
DOM	Dominican Republic	21	PRY	Paraguay	21
DZA	Algeria	21	QAT	Qatar	11
ECU	Ecuador	21	ROU	Romania	21
EGY	Egypt, Arab Rep.	21	RUS	Russian Federation	21
ESP	Spain	21	RWA	Rwanda	21
EST	Estonia	21	SAU	Saudi Arabia	11
ETH	Ethiopia	16	SEN	Senegal	21
FIN	Finland	21	SGP	Singapore	21
FJI	Fiji	21	SLE	Sierra Leone	21
FRA	France	21	SLV	El Salvador	21
GAB	Gabon	17	SRB	Serbia	15
GBR	United Kingdom	21	SUR	Suriname	11
GEO	Georgia	19	SVK	Slovak Republic	21
GHA	Ghana	21	SVN	Slovenia	21
GMB	Gambia, The	11	SWE	Sweden	21
GNB	Guinea-Bissau	17	SWZ	Eswatini	11
GRC	Greece	21	SYR	Syrian Arab Republic	21
GTM	Guatemala	21	TCD	Chad	21
GUY	Guyana	19	TGO	Togo	21
HKG	Hong Kong SAR, China	21	THA	Thailand	21
HND	Honduras	21	TJK	Tajikistan	11
HRV	Croatia	21	TLS	Timor-Leste	11
HTI	Haiti	21	TTO	Trinidad and Tobago	21
HUN	Hungary	21	TUN	Tunisia	21
IDN	Indonesia	21	TUR	Türkiye	21
IND	India	21	TZA	Tanzania	21
IRL	Ireland	21	UGA	Uganda	21

Continued on next page

Table C.1 continued

ISO	Country	T_i	ISO	Country	T_i
IRN	Iran, Islamic Rep.	21	UKR	Ukraine	21
ISL	Iceland	21	URY	Uruguay	21
ISR	Israel	21	USA	United States	21
ITA	Italy	21	VEN	Venezuela, RB	15
JAM	Jamaica	21	VNM	Viet Nam	19
JOR	Jordan	21	YEM	Yemen, Rep.	11
JPN	Japan	21	ZAF	South Africa	21
KAZ	Kazakhstan	16	ZMB	Zambia	21
KEN	Kenya	21	ZWE	Zimbabwe	21
KGZ	Kyrgyz Republic	16			

Notes: T_i is the number of annual observations per country between 2000 and 2020. The sample comprises 151 countries and 2,937 country-year observations. Countries with fewer than 10 years of data were excluded.

C.2 Data Sources

The dataset combines the following variables.

- **Merchandise trade** (variable `Merchandise_...`). This is the sum of merchandise exports and imports, divided by the value of GDP, all in current US dollars. Logs were taken for a better interpretation of the coefficients: the summary statistics in Table C.3 show a mean of about 4.04 and a range of about 2.05 to 6.04 (a log value of 4.04 corresponds to roughly 57% of GDP). The data stem from World Bank (2026), indicator TG.VAL.TOTL.GD.ZS.
- **Unemployment** (variable `Unemployme...`). This is the unemployment rate in percent of the labor force. ILO modeled estimates via the World Bank WDI. The data stem from World Bank (2026), indicator SL.UEM.TOTL.ZS.
- **Labor market regulation** (variable `Labor_Mar...5B`). This is an index of labor market regulation (component 5B), scored on a 0–10 scale, where higher values indicate less restrictive regulation.
Data source: Fraser Institute, Economic Freedom of the World (EFW) annual report (Gwartney et al., 2022).
- **Identifiers.** The data contain the country name and the country code as string variables, a numeric country identifier (ID), and the calendar year (`Year`).

C.3 Panel Structure

C.3.1 Dimensions and Balance

The panel is unbalanced. Of the 151 countries, 112 (74.17%) are observed in all 21 years from 2000 to 2020. The remaining 39 countries (25.83%) enter the data after 2000 or, in one case, leave before 2020. In total, 2,937 country-year observations are available. A fully balanced panel with the same number of countries would contain $151 \times 21 = 3,171$ observations, so about 92.6% of the potential observations are present. The average number of observations per country is $2,937/151 \approx 19.5$.

Table C.2 reports the distribution of the number of observations per country T_i . The median country is observed in all 21 years, and so is every country at or above the 50th percentile. The 25th percentile is 19 years, while the minimum is 11 years, which is the 5th percentile as well. This indicates that short panels are the exception, and that the sample restriction to at least 10 years removes the thin tail of the coverage distribution.

Table C.2: Distribution of the number of observations per country (T_i)

	Min	5%	25%	50%	75%	95%	Max
T_i	11	11	19	21	21	21	21

Notes: The table is based on the output of Stata's `xtdescribe`. $N = 151$ countries, $T = 21$ years (2000–2020).

C.4 Descriptive Statistics

Table C.3 presents the summary statistics for the pooled sample of 2,937 country-year observations.

Table C.3: Summary statistics (pooled sample)

Variable	Obs.	Mean	Std. Dev.	Min	Max
Merchandise trade	2,937	4.042	0.533	2.055	6.040
Unemployment rate (%)	2,937	7.763	5.694	0.100	37.320
Labor market regulation (5B)	2,937	6.277	1.444	1.330	9.725

Notes: Statistics were computed with Stata's `summarize` based upon the sample of observations included in the benchmark regression.

Merchandise trade has a mean of 4.04 and a standard deviation of 0.53, with values between 2.05 and 6.04. The range covers more than three log points, which corresponds to a ratio of about 54 between the most and the least open observation as the variable is in logs. This spread shows that the sample contains both relatively closed economies and highly open, trade-intensive economies.

The unemployment rate has a mean of 7.76% and a standard deviation of 5.69 percentage points. The distribution is clearly right-skewed, as the maximum of 37.32% is far above the mean, while the minimum is 0.1%. The maximum corresponds to a country-year in severe labor market distress.

The labor market regulation index has a mean of 6.28 and a standard deviation of 1.44 on its scale from 0 to 10. Observed values range from 1.33 to 9.73. This means that the sample covers nearly the whole scale, from very restrictive to very flexible labor market regimes, although it does not reach the theoretical maximum of 10. The substantial cross-country dispersion offers the variation needed to identify the role of labor market institutions.

C.5 Estimation Code

This section documents the Stata code used to estimate how the effect of trade openness on unemployment depends on the strictness of labor market regulation. The code is presented in blocks, each followed by an explanation of what it does and why.

The analysis uses a country-year panel containing the following variables:

- **Unemploymenttotaloftotal**: the total unemployment rate (dependent variable).
- **Merchandise trade of GDP**: merchandise trade as a share of GDP, a measure of trade openness.
- **Labor_Market_Regulations_5B**: the labor market regulation index (component 5B), scored from 0 to 10, where higher values indicate *less* restrictive regulation. Source:

Fraser Institute, *Economic Freedom of the World*.

- **CountryCode** and **Year**: the panel identifiers.

```
clear

use "\\Data_Interaction_Trade_Institutions_Unemployment.dta", clear

replace MerchandiseTradeofGDP=ln(MerchandiseTradeofGDP)
encode CountryCode, gen(ID)
xtset ID Year
```

The command `clear` removes any data in memory, and `use` loads the dataset.

Since **CountryCode** is a string variable, `encode` converts it into a numeric variable **ID** with value labels, which is required by `xtset`. The command `xtset ID Year` declares the data as a panel with countries as units and years as the time dimension.

```
xtreg Unemploymenttotaloftotal c.MerchandiseTradeofGDP##c.
      Labor_Market_Regulations_5B Year, fe vce(bootstrap, reps(1000))

margins, dydx(MerchandiseTradeofGDP) at(Labor_Market_Regulations_5B=(2(1)10))

marginsplot, level(80)
```

Model. The command `xtreg ..., fe` estimates a fixed-effects (within) regression. The operator `c.A##c.B` includes both main effects and their interaction, treating both variables as continuous. The specification is

$$U_{it} = \alpha_i + \beta_1 Trade_{it} + \beta_2 Reg_{it} + \beta_3 (Trade_{it} \times Reg_{it}) + \gamma Year_t + \varepsilon_{it}, \quad (C.2)$$

where U_{it} is unemployment in country i and year t , $Trade_{it}$ is trade openness, Reg_{it} is the labor market regulation index, and α_i is a country fixed effect. The country fixed effects absorb all time-invariant differences between countries, and the linear term $Year_t$ controls for a common time trend.

Standard errors. The option `vce(bootstrap, reps(1000))` computes standard errors from 1,000 bootstrap replications instead of the analytical formula. In panel commands the bootstrap resamples entire countries, so the resulting standard errors are robust to arbitrary serial correlation within a country. Because the bootstrap draws random samples, results differ slightly between runs unless a seed is set.

Marginal effects. Because of the interaction term, the coefficient β_1 alone does not describe the effect of trade. The marginal effect of trade on unemployment depends on the level of regulation:

$$\frac{\partial U_{it}}{\partial Trade_{it}} = \beta_1 + \beta_3 Reg_{it}. \quad (C.3)$$

The command

```
margins, dydx(MerchandiseTradeofGDP)
at(Labor_Market_Regulations_5B=(2(1)10))
```

evaluates Equation (C.3) at index values 2, 3, ..., 10. Since higher index values mean less restrictive regulation, this traces how the effect of trade changes from strongly regulated to weakly regulated labor markets. Finally, `marginsplot, level(80)` plots these marginal effects with 80 % confidence intervals.

```

drop if MerchandisetradeofGDP==.
drop if Unemploymenttotaloftotal==.
drop if Labor_Market_Regulations_5B==.

bysort ID: gen n_obs = _N
drop if n_obs < 10

xtreg Unemploymenttotaloftotal c.MerchandisetradeofGDP##c.
      Labor_Market_Regulations_5B Year, fe vce(bootstrap, reps(1000))

margins, dydx(MerchandisetradeofGDP) at(Labor_Market_Regulations_5B=(2(1)10))

marginsplot, level(80)

```

The second block repeats the analysis on a restricted sample. First, observations with a missing value in any of the three key variables are dropped. Only then are the observations per country counted with `bysort ID: gen n_obs = _N`, and countries with fewer than ten remaining observations are removed. The order matters: because missing values are dropped first, `n_obs` counts the years with *usable* data rather than the number of rows in the dataset.

The motivation for this restriction is that the within estimator relies on variation over time inside each country. Countries observed for only a few years contribute little such variation, and a short series can make the estimates sensitive to a handful of observations. Re-estimating the model, the marginal effects, and the plot on this restricted sample shows whether the main findings depend on these short series.

D Raw data

This section presents the raw data used for the regression in Appendix C. The labor market regulation index is taken from Gwartney et al. (2022) and can be downloaded from <https://www.fraserinstitute.org/studies/economic-freedom-of-the-world-2022-annual-report>. All results can be replicated using these data. The data set is also available upon request.

Table D.1: Estimation data

Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Angola	AGO	2005	4.4751	16.360	3.9893
Angola	AGO	2006	4.3514	16.206	3.8060
Angola	AGO	2007	4.4881	16.153	3.9872
Angola	AGO	2008	4.5632	16.228	2.9808
Angola	AGO	2009	4.5031	16.431	3.8748
Angola	AGO	2010	4.3853	16.618	4.0070
Angola	AGO	2011	4.3606	16.770	1.3300
Angola	AGO	2012	4.3046	16.562	2.7725
Angola	AGO	2013	4.2692	16.492	2.6348
Angola	AGO	2014	4.1673	16.406	2.4506
Angola	AGO	2015	4.0865	16.490	4.5603
Angola	AGO	2016	4.3439	16.575	4.5603
Angola	AGO	2017	4.1987	16.610	5.3735
Angola	AGO	2018	4.2653	16.594	5.3382
Angola	AGO	2019	4.2438	16.497	5.3382
Angola	AGO	2020	4.1727	16.690	5.3382
Albania	ALB	2000	3.6301	19.023	7.3107
Albania	ALB	2001	3.6952	18.570	7.3107
Albania	ALB	2002	3.7097	17.891	7.1021
Albania	ALB	2003	3.6851	16.985	5.3521
Albania	ALB	2004	3.6723	16.306	5.9352
Albania	ALB	2005	3.6814	15.966	5.9732
Albania	ALB	2006	3.7394	15.626	5.8463
Albania	ALB	2007	3.8587	15.966	5.7722
Albania	ALB	2008	3.9079	13.060	5.7926
Albania	ALB	2009	3.8233	13.674	5.9437
Albania	ALB	2010	3.8965	14.086	7.1386
Albania	ALB	2011	4.0342	13.481	7.0329
Albania	ALB	2012	4.0236	13.376	6.8340

Continued on next page

Table D.1 continued from previous page

Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Albania	ALB	2013	4.0382	15.866	6.6471
Albania	ALB	2014	4.0525	18.055	7.2031
Albania	ALB	2015	3.9930	17.193	6.8306
Albania	ALB	2016	4.0040	15.418	6.9163
Albania	ALB	2017	4.0438	13.616	6.9384
Albania	ALB	2018	4.0463	12.304	6.7179
Albania	ALB	2019	4.0121	11.466	6.7179
Albania	ALB	2020	3.9700	11.690	6.7179
United Arab Emirates	ARE	2000	4.3984	2.250	7.5532
United Arab Emirates	ARE	2001	4.4184	2.444	7.5532
United Arab Emirates	ARE	2002	4.4583	2.661	7.5532
United Arab Emirates	ARE	2003	4.5630	2.908	7.5910
United Arab Emirates	ARE	2004	4.7034	2.965	7.6178
United Arab Emirates	ARE	2005	4.7168	3.120	7.4828
United Arab Emirates	ARE	2006	4.7059	2.963	7.4754
United Arab Emirates	ARE	2007	4.8478	2.936	7.4433
United Arab Emirates	ARE	2008	4.9368	2.821	7.5284
United Arab Emirates	ARE	2009	4.9611	2.944	7.1929
United Arab Emirates	ARE	2010	4.8936	2.811	8.4955
United Arab Emirates	ARE	2011	4.9933	2.596	8.5124
United Arab Emirates	ARE	2012	5.0766	2.327	8.4176
United Arab Emirates	ARE	2013	5.0821	2.126	8.5537
United Arab Emirates	ARE	2014	5.0073	2.002	6.8263
United Arab Emirates	ARE	2015	5.0258	1.793	6.9672
United Arab Emirates	ARE	2016	5.0245	1.640	6.9633
United Arab Emirates	ARE	2017	4.9857	2.462	6.6971
United Arab Emirates	ARE	2018	4.9982	2.236	6.7177
United Arab Emirates	ARE	2019	5.0887	2.331	6.7177
United Arab Emirates	ARE	2020	5.1157	4.294	6.7177
Argentina	ARG	2000	2.8970	15.000	5.0912
Argentina	ARG	2001	2.8588	17.320	4.6496
Argentina	ARG	2002	3.5680	19.590	5.3111
Argentina	ARG	2003	3.5268	15.360	5.3111
Argentina	ARG	2004	3.5447	13.522	5.2171
Argentina	ARG	2005	3.5479	11.506	5.1170
Argentina	ARG	2006	3.5467	10.078	5.1056
Argentina	ARG	2007	3.5538	8.470	5.2364
Argentina	ARG	2008	3.5627	7.837	5.1842
Argentina	ARG	2009	3.3453	8.645	5.3243
Argentina	ARG	2010	3.3845	7.714	5.3590
Argentina	ARG	2011	3.3969	7.180	5.3356
Argentina	ARG	2012	3.2995	7.217	5.3420
Argentina	ARG	2013	3.3049	7.100	4.9262
Argentina	ARG	2014	3.2381	7.268	5.2670
Argentina	ARG	2015	2.9791	7.579	4.9659
Argentina	ARG	2016	3.0158	8.085	5.1514
Argentina	ARG	2017	2.9710	8.347	5.1345
Argentina	ARG	2018	3.1884	9.220	5.1195
Argentina	ARG	2019	3.2392	9.843	5.1195
Argentina	ARG	2020	3.2272	11.461	5.1195
Armenia	ARM	2004	4.0602	10.617	6.7777
Armenia	ARM	2005	4.0369	10.540	6.0466
Armenia	ARM	2006	3.9072	10.465	6.1178
Armenia	ARM	2007	3.8714	10.394	6.1985
Armenia	ARM	2008	3.8505	17.100	6.1190
Armenia	ARM	2009	3.8419	19.295	6.2345
Armenia	ARM	2010	3.9468	19.523	6.5542
Armenia	ARM	2011	3.9894	18.884	6.6612
Armenia	ARM	2012	3.9726	17.511	6.5587
Armenia	ARM	2013	3.9809	16.576	6.3793
Armenia	ARM	2014	3.9317	17.498	6.2974
Armenia	ARM	2015	3.8014	18.261	6.3237
Armenia	ARM	2016	3.8718	17.617	6.2346
Armenia	ARM	2017	4.0220	17.704	6.4123
Armenia	ARM	2018	4.0809	18.966	6.4611
Armenia	ARM	2019	4.0922	18.304	6.4611
Armenia	ARM	2020	4.0287	18.175	6.4611
Australia	AUS	2000	3.4823	6.288	6.2428
Australia	AUS	2001	3.5123	6.747	6.5056
Australia	AUS	2002	3.5495	6.375	7.5604
Australia	AUS	2003	3.5291	5.933	7.4771
Australia	AUS	2004	3.4620	5.399	7.6404
Australia	AUS	2005	3.5043	5.036	8.3599
Australia	AUS	2006	3.5582	4.785	8.4765
Australia	AUS	2007	3.5799	4.381	8.5962
Australia	AUS	2008	3.6026	4.242	8.4766
Australia	AUS	2009	3.5390	5.565	8.3891
Australia	AUS	2010	3.5852	5.214	7.7355
Australia	AUS	2011	3.6069	5.083	7.2719
Australia	AUS	2012	3.5100	5.225	6.7445
Australia	AUS	2013	3.4466	5.663	7.0243
Australia	AUS	2014	3.4815	6.078	8.0097
Australia	AUS	2015	3.3782	6.055	7.6572
Australia	AUS	2016	3.4724	5.711	7.6986
Australia	AUS	2017	3.5466	5.592	7.7217
Australia	AUS	2018	3.5407	5.300	7.8033
Australia	AUS	2019	3.5658	5.159	7.8033
Australia	AUS	2020	3.5504	6.456	7.8033
Austria	AUT	2000	4.2685	4.687	4.8502
Austria	AUT	2001	4.3040	4.007	5.1611
Austria	AUT	2002	4.3007	4.852	5.8747

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Austria	AUT	2003	4.3231	4.779	5.9858
Austria	AUT	2004	4.3775	5.969	5.9941
Austria	AUT	2005	4.3874	5.682	5.9055
Austria	AUT	2006	4.4073	5.320	6.1470
Austria	AUT	2007	4.4363	4.909	6.0693
Austria	AUT	2008	4.4447	4.198	5.9178
Austria	AUT	2009	4.2505	5.371	6.2119
Austria	AUT	2010	4.3811	4.883	6.3281
Austria	AUT	2011	4.4542	4.637	6.2865
Austria	AUT	2012	4.4409	4.909	6.1960
Austria	AUT	2013	4.4311	5.367	6.0862
Austria	AUT	2014	4.4086	5.674	5.6487
Austria	AUT	2015	4.3988	5.802	5.5521
Austria	AUT	2016	4.3655	6.064	5.5651
Austria	AUT	2017	4.4171	5.561	5.6153
Austria	AUT	2018	4.4265	4.933	5.8624
Austria	AUT	2019	4.4072	4.560	5.8624
Austria	AUT	2020	4.3656	5.201	5.8624
Azerbaijan	AZE	2004	4.4086	7.990	6.1528
Azerbaijan	AZE	2005	4.5063	7.260	6.5082
Azerbaijan	AZE	2006	4.4675	6.620	6.3628
Azerbaijan	AZE	2007	4.4146	6.330	6.3108
Azerbaijan	AZE	2008	4.3582	5.860	6.8863
Azerbaijan	AZE	2009	4.1326	5.740	6.8007
Azerbaijan	AZE	2010	4.1398	5.630	6.6911
Azerbaijan	AZE	2011	4.2153	5.420	6.6482
Azerbaijan	AZE	2012	4.1236	5.190	6.5029
Azerbaijan	AZE	2013	4.0372	4.970	6.3465
Azerbaijan	AZE	2014	3.9074	4.910	6.5743
Azerbaijan	AZE	2015	3.8842	4.960	6.3967
Azerbaijan	AZE	2016	4.0436	5.000	6.0768
Azerbaijan	AZE	2017	4.0839	5.000	6.2015
Azerbaijan	AZE	2018	4.2116	4.900	6.5434
Azerbaijan	AZE	2019	4.2360	5.000	6.5434
Azerbaijan	AZE	2020	4.0484	7.240	6.5434
Burundi	BDI	2000	3.1244	3.129	8.0724
Burundi	BDI	2001	3.0107	3.150	8.0724
Burundi	BDI	2002	2.9582	3.169	8.0724
Burundi	BDI	2003	3.2129	3.134	8.0724
Burundi	BDI	2004	3.1931	3.177	8.0724
Burundi	BDI	2005	3.3766	3.153	7.6851
Burundi	BDI	2006	3.6481	3.185	7.5313
Burundi	BDI	2007	3.3276	2.401	7.4562
Burundi	BDI	2008	3.3513	1.634	7.3112
Burundi	BDI	2009	3.2706	1.621	8.2073
Burundi	BDI	2010	3.4018	1.616	7.7938
Burundi	BDI	2011	3.6670	1.602	7.6888
Burundi	BDI	2012	3.6357	1.593	7.4406
Burundi	BDI	2013	3.6086	1.584	7.7415
Burundi	BDI	2014	3.5055	1.572	7.8888
Burundi	BDI	2015	3.4502	1.442	7.8908
Burundi	BDI	2016	3.3329	1.347	7.8033
Burundi	BDI	2017	3.5274	1.247	7.8033
Burundi	BDI	2018	3.5968	1.146	8.0542
Burundi	BDI	2019	3.7236	1.043	8.0542
Burundi	BDI	2020	3.6993	1.030	8.0542
Belgium	BEL	2000	5.0403	6.586	5.5956
Belgium	BEL	2001	5.0490	6.178	5.5108
Belgium	BEL	2002	5.0776	6.910	6.3750
Belgium	BEL	2003	5.0384	7.680	6.5694
Belgium	BEL	2004	5.0781	7.363	6.5775
Belgium	BEL	2005	5.1318	8.440	6.6404
Belgium	BEL	2006	5.1703	8.246	6.5825
Belgium	BEL	2007	5.1869	7.459	6.8645
Belgium	BEL	2008	5.2004	6.976	6.9037
Belgium	BEL	2009	5.0051	7.908	7.3875
Belgium	BEL	2010	5.1113	8.293	7.3832
Belgium	BEL	2011	5.1863	7.140	7.4035
Belgium	BEL	2012	5.1794	7.542	7.4122
Belgium	BEL	2013	5.1683	8.425	7.0448
Belgium	BEL	2014	5.1481	8.523	7.1509
Belgium	BEL	2015	5.1211	8.482	7.2391
Belgium	BEL	2016	5.0995	7.830	7.3275
Belgium	BEL	2017	5.1208	7.090	7.3716
Belgium	BEL	2018	5.1368	5.941	7.4157
Belgium	BEL	2019	5.0948	5.364	7.4157
Belgium	BEL	2020	5.0406	5.545	7.4157
Benin	BEN	2000	3.3517	0.864	4.6656
Benin	BEN	2001	3.3030	0.765	4.6656
Benin	BEN	2002	3.3310	0.690	4.6656
Benin	BEN	2003	3.2880	0.747	4.6656
Benin	BEN	2004	3.1627	0.790	5.3440
Benin	BEN	2005	3.1905	0.860	5.3816
Benin	BEN	2006	3.3294	0.889	5.3702
Benin	BEN	2007	3.6310	0.902	5.4016
Benin	BEN	2008	3.5969	0.894	5.4823
Benin	BEN	2009	3.5197	0.949	5.8433
Benin	BEN	2010	3.5549	1.040	5.9500
Benin	BEN	2011	3.4994	2.647	5.8781
Benin	BEN	2012	3.5248	2.406	5.7360
Benin	BEN	2013	3.6859	2.099	3.7780

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Benin	BEN	2014	3.8730	1.872	5.9661
Benin	BEN	2015	3.6179	1.820	5.7324
Benin	BEN	2016	3.6713	1.784	5.9376
Benin	BEN	2017	3.8057	1.659	6.2155
Benin	BEN	2018	3.9912	1.410	6.3439
Benin	BEN	2019	3.8821	1.214	6.3439
Benin	BEN	2020	3.7320	1.502	6.3439
Burkina Faso	BFA	2005	3.3363	4.000	5.8933
Burkina Faso	BFA	2006	3.3716	3.669	5.8401
Burkina Faso	BFA	2007	3.4070	3.300	7.1291
Burkina Faso	BFA	2008	3.3563	3.496	7.1733
Burkina Faso	BFA	2009	3.3779	3.711	7.2229
Burkina Faso	BFA	2010	3.5834	3.723	7.7647
Burkina Faso	BFA	2011	3.6833	3.827	7.8227
Burkina Faso	BFA	2012	3.8250	3.856	7.2424
Burkina Faso	BFA	2013	3.9119	4.055	7.3417
Burkina Faso	BFA	2014	3.7668	4.251	7.1588
Burkina Faso	BFA	2015	3.7937	4.461	7.1583
Burkina Faso	BFA	2016	3.8202	4.587	7.1583
Burkina Faso	BFA	2017	3.8660	4.656	6.9135
Burkina Faso	BFA	2018	3.8617	4.695	7.0128
Burkina Faso	BFA	2019	3.8485	4.710	7.0128
Burkina Faso	BFA	2020	3.8700	5.040	7.0128
Bangladesh	BGD	2000	3.3539	3.270	6.0935
Bangladesh	BGD	2001	3.3309	3.610	6.1235
Bangladesh	BGD	2002	3.2935	3.966	6.4375
Bangladesh	BGD	2003	3.3660	4.320	6.4098
Bangladesh	BGD	2004	3.4418	4.314	6.3490
Bangladesh	BGD	2005	3.5077	4.250	6.7637
Bangladesh	BGD	2006	3.6577	3.591	6.4375
Bangladesh	BGD	2007	3.6636	4.017	6.3495
Bangladesh	BGD	2008	3.7568	4.492	6.3735
Bangladesh	BGD	2009	3.5842	5.000	6.5407
Bangladesh	BGD	2010	3.7083	3.379	6.6829
Bangladesh	BGD	2011	3.8536	3.736	6.5792
Bangladesh	BGD	2012	3.7951	4.071	6.5098
Bangladesh	BGD	2013	3.7872	4.426	7.2293
Bangladesh	BGD	2014	3.7226	4.416	7.2748
Bangladesh	BGD	2015	3.6412	4.396	7.2618
Bangladesh	BGD	2016	3.4024	4.350	7.2236
Bangladesh	BGD	2017	3.4076	4.372	7.1736
Bangladesh	BGD	2018	3.4352	4.407	7.0550
Bangladesh	BGD	2019	3.3331	4.441	7.0550
Bangladesh	BGD	2020	3.1401	5.436	7.0550
Bulgaria	BGR	2000	4.4547	16.218	5.6302
Bulgaria	BGR	2001	4.4705	19.921	5.6264
Bulgaria	BGR	2002	4.4241	18.110	6.4221
Bulgaria	BGR	2003	4.4669	13.733	6.3665
Bulgaria	BGR	2004	4.5350	12.037	6.4803
Bulgaria	BGR	2005	4.6063	10.083	6.4322
Bulgaria	BGR	2006	4.7140	8.951	6.5732
Bulgaria	BGR	2007	4.6924	6.878	7.8186
Bulgaria	BGR	2008	4.6894	5.609	7.7453
Bulgaria	BGR	2009	4.3388	6.817	7.7916
Bulgaria	BGR	2010	4.5112	10.279	7.6837
Bulgaria	BGR	2011	4.6577	11.260	7.7042
Bulgaria	BGR	2012	4.6949	12.270	7.6766
Bulgaria	BGR	2013	4.7401	12.941	7.3927
Bulgaria	BGR	2014	4.7180	11.424	7.3051
Bulgaria	BGR	2015	4.6775	9.143	7.0445
Bulgaria	BGR	2016	4.6340	7.575	7.0357
Bulgaria	BGR	2017	4.7087	6.164	7.0623
Bulgaria	BGR	2018	4.6810	5.211	7.1732
Bulgaria	BGR	2019	4.6391	4.230	7.1732
Bulgaria	BGR	2020	4.5537	5.125	7.1732
Bahrain	BHR	2003	4.7092	1.128	7.0556
Bahrain	BHR	2004	4.7330	1.065	7.3684
Bahrain	BHR	2005	4.8119	1.021	7.0322
Bahrain	BHR	2006	4.8102	1.021	8.6129
Bahrain	BHR	2007	4.7502	1.006	8.7252
Bahrain	BHR	2008	4.8332	1.014	8.6412
Bahrain	BHR	2009	4.5622	1.070	8.7378
Bahrain	BHR	2010	4.6209	1.130	8.8693
Bahrain	BHR	2011	4.6844	1.210	8.8995
Bahrain	BHR	2012	4.5635	1.200	8.3271
Bahrain	BHR	2013	4.5475	1.182	8.3177
Bahrain	BHR	2014	4.5328	1.141	8.0919
Bahrain	BHR	2015	4.4887	1.160	8.2170
Bahrain	BHR	2016	4.2753	1.192	6.6194
Bahrain	BHR	2017	4.3394	1.194	7.7911
Bahrain	BHR	2018	4.4211	1.200	7.8992
Bahrain	BHR	2019	4.3512	1.223	7.8992
Bahrain	BHR	2020	4.3127	1.781	7.8992
Bahamas, The	BHS	2006	3.5476	7.540	9.1224
Bahamas, The	BHS	2007	3.5707	7.880	9.1224
Bahamas, The	BHS	2008	3.6115	8.180	9.3974
Bahamas, The	BHS	2009	3.4935	14.250	9.4438
Bahamas, The	BHS	2010	3.5409	14.432	8.8616
Bahamas, The	BHS	2011	3.7158	14.520	8.8616
Bahamas, The	BHS	2012	3.7315	14.020	8.8616
Bahamas, The	BHS	2013	3.6857	16.180	5.5744

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Bahamas, The	BHS	2014	3.6943	13.800	8.3616
Bahamas, The	BHS	2015	3.4162	12.000	8.3616
Bahamas, The	BHS	2016	3.3475	12.700	8.3616
Bahamas, The	BHS	2017	3.4449	9.800	8.3616
Bahamas, The	BHS	2018	3.4490	10.000	5.5744
Bahamas, The	BHS	2019	3.3693	9.336	5.5744
Bahamas, The	BHS	2020	3.1991	12.027	8.3616
Bosnia and Herzegovina	BIH	2005	4.4354	30.227	6.0938
Bosnia and Herzegovina	BIH	2006	4.4179	31.110	6.9619
Bosnia and Herzegovina	BIH	2007	4.4764	28.984	7.1276
Bosnia and Herzegovina	BIH	2008	4.5003	23.405	7.5392
Bosnia and Herzegovina	BIH	2009	4.2802	24.068	7.4577
Bosnia and Herzegovina	BIH	2010	4.4026	27.312	7.2891
Bosnia and Herzegovina	BIH	2011	4.5070	27.582	7.1360
Bosnia and Herzegovina	BIH	2012	4.4788	28.010	7.0107
Bosnia and Herzegovina	BIH	2013	4.4764	27.490	5.3232
Bosnia and Herzegovina	BIH	2014	4.5104	27.517	7.8260
Bosnia and Herzegovina	BIH	2015	4.4527	27.695	7.1301
Bosnia and Herzegovina	BIH	2016	4.4375	25.408	7.3997
Bosnia and Herzegovina	BIH	2017	4.5245	20.527	7.3461
Bosnia and Herzegovina	BIH	2018	4.5200	18.400	7.2088
Bosnia and Herzegovina	BIH	2019	4.4612	15.692	7.2088
Bosnia and Herzegovina	BIH	2020	4.3725	15.868	7.2088
Belize	BLZ	2004	4.0757	10.584	9.1688
Belize	BLZ	2005	4.1244	10.910	9.1688
Belize	BLZ	2006	4.2167	9.390	8.8938
Belize	BLZ	2007	4.1657	8.510	8.8938
Belize	BLZ	2008	4.3189	8.180	8.8938
Belize	BLZ	2009	4.1301	8.328	9.2615
Belize	BLZ	2010	4.2169	8.416	8.1980
Belize	BLZ	2011	4.3636	8.430	6.0066
Belize	BLZ	2012	4.3558	8.379	7.0116
Belize	BLZ	2013	4.3256	8.349	5.7188
Belize	BLZ	2014	4.2841	8.244	5.3855
Belize	BLZ	2015	4.2445	7.578	5.3855
Belize	BLZ	2016	4.1322	7.000	5.3855
Belize	BLZ	2017	4.1040	6.596	5.3855
Belize	BLZ	2018	4.1181	7.896	5.3855
Belize	BLZ	2019	4.0789	9.053	5.3855
Belize	BLZ	2020	3.9641	10.784	7.5451
Bolivia	BOL	2000	3.5956	2.447	3.9397
Bolivia	BOL	2001	3.6045	2.636	3.6122
Bolivia	BOL	2002	3.6606	2.613	3.6605
Bolivia	BOL	2003	3.6827	2.664	3.6882
Bolivia	BOL	2004	3.8304	2.622	3.5722
Bolivia	BOL	2005	4.0085	2.603	4.5699
Bolivia	BOL	2006	4.0939	2.577	4.2502
Bolivia	BOL	2007	4.1217	2.616	3.7497
Bolivia	BOL	2008	4.2428	2.603	3.6201
Bolivia	BOL	2009	4.0040	2.973	4.5974
Bolivia	BOL	2010	4.1113	2.608	4.5446
Bolivia	BOL	2011	4.2189	2.255	4.4570
Bolivia	BOL	2012	4.2935	2.066	4.5032
Bolivia	BOL	2013	4.2265	2.437	4.4815
Bolivia	BOL	2014	4.2364	2.021	4.0601
Bolivia	BOL	2015	4.0260	3.111	3.9485
Bolivia	BOL	2016	3.8220	3.498	3.9485
Bolivia	BOL	2017	3.8217	3.655	3.8360
Bolivia	BOL	2018	3.8515	3.519	3.8324
Bolivia	BOL	2019	3.8141	3.682	3.8324
Bolivia	BOL	2020	3.6501	7.903	3.8324
Brazil	BRA	2000	2.8540	10.889	4.8291
Brazil	BRA	2001	3.0366	10.649	4.8350
Brazil	BRA	2002	3.0731	10.641	4.3948
Brazil	BRA	2003	3.1014	11.168	4.2559
Brazil	BRA	2004	3.1934	10.072	4.1168
Brazil	BRA	2005	3.0910	10.551	3.8399
Brazil	BRA	2006	3.0532	9.692	3.8494
Brazil	BRA	2007	3.0257	9.280	3.9725
Brazil	BRA	2008	3.1086	8.268	3.9148
Brazil	BRA	2009	2.8465	9.419	4.4312
Brazil	BRA	2010	2.8803	8.422	4.5005
Brazil	BRA	2011	2.9349	7.578	4.5942
Brazil	BRA	2012	2.9592	7.251	4.5439
Brazil	BRA	2013	2.9758	7.071	4.3610
Brazil	BRA	2014	2.9337	6.755	4.4867
Brazil	BRA	2015	3.0144	8.538	4.1759
Brazil	BRA	2016	2.8952	11.580	4.1499
Brazil	BRA	2017	2.9154	12.792	4.2105
Brazil	BRA	2018	3.0981	12.329	4.4609
Brazil	BRA	2019	3.0963	11.936	4.4609
Brazil	BRA	2020	3.2363	13.697	4.4609
Barbados	BRB	2005	3.9395	9.080	7.2123
Barbados	BRB	2006	3.9576	8.730	7.1173
Barbados	BRB	2007	3.8826	7.410	7.0487
Barbados	BRB	2008	3.9174	8.120	6.9664
Barbados	BRB	2009	3.7117	10.020	7.6196
Barbados	BRB	2010	3.6504	10.690	6.9299
Barbados	BRB	2011	3.7537	11.190	7.6884
Barbados	BRB	2012	3.7952	11.590	7.6999
Barbados	BRB	2013	3.7217	11.550	7.2495

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Barbados	BRB	2014	3.7194	12.170	7.2495
Barbados	BRB	2015	3.6821	9.803	7.1395
Barbados	BRB	2016	3.6920	8.247	7.1395
Barbados	BRB	2017	3.6320	8.622	5.4305
Barbados	BRB	2018	3.5831	8.322	6.9893
Barbados	BRB	2019	3.5549	8.412	6.9893
Barbados	BRB	2020	3.5735	9.777	6.9893
Brunei Darussalam	BRN	2010	4.4248	6.455	9.0094
Brunei Darussalam	BRN	2011	4.4645	6.442	8.9846
Brunei Darussalam	BRN	2012	4.4660	6.482	8.8599
Brunei Darussalam	BRN	2013	4.4216	6.655	6.6667
Brunei Darussalam	BRN	2014	4.4130	6.862	6.6861
Brunei Darussalam	BRN	2015	4.3055	7.726	8.6941
Brunei Darussalam	BRN	2016	4.1936	8.574	8.6867
Brunei Darussalam	BRN	2017	4.2679	9.316	8.6941
Brunei Darussalam	BRN	2018	4.3713	8.700	8.7882
Brunei Darussalam	BRN	2019	4.5014	6.600	8.7882
Brunei Darussalam	BRN	2020	4.6006	7.409	8.7882
Botswana	BWA	2000	4.4087	15.880	6.9150
Botswana	BWA	2001	4.3653	18.540	7.0093
Botswana	BWA	2002	4.3632	21.268	6.9150
Botswana	BWA	2003	4.2485	23.800	7.0539
Botswana	BWA	2004	4.3213	21.758	7.1613
Botswana	BWA	2005	4.3370	19.847	7.0857
Botswana	BWA	2006	4.3408	17.782	7.0562
Botswana	BWA	2007	4.4711	16.998	6.9668
Botswana	BWA	2008	4.5507	16.328	7.0120
Botswana	BWA	2009	4.3930	16.169	7.2057
Botswana	BWA	2010	4.4055	17.860	7.3518
Botswana	BWA	2011	4.4665	18.054	7.2693
Botswana	BWA	2012	4.6115	17.952	7.4955
Botswana	BWA	2013	4.7358	18.203	7.6149
Botswana	BWA	2014	4.6749	18.514	7.3665
Botswana	BWA	2015	4.6069	18.930	7.5195
Botswana	BWA	2016	4.4950	19.329	7.5097
Botswana	BWA	2017	4.2419	19.664	7.4873
Botswana	BWA	2018	4.3258	19.681	7.4175
Botswana	BWA	2019	4.2564	20.094	7.4175
Botswana	BWA	2020	4.2773	21.017	7.4175
Central African Republic	CAF	2000	3.4119	5.362	4.4651
Central African Republic	CAF	2001	3.2846	5.405	4.4651
Central African Republic	CAF	2002	3.2886	5.437	4.4651
Central African Republic	CAF	2003	3.0697	5.433	4.4651
Central African Republic	CAF	2004	3.1090	5.352	4.4651
Central African Republic	CAF	2005	3.1201	5.314	4.4651
Central African Republic	CAF	2006	3.2066	5.235	4.4651
Central African Republic	CAF	2007	3.2237	5.191	4.4651
Central African Republic	CAF	2008	3.1168	5.139	4.4651
Central African Republic	CAF	2009	2.9373	5.202	3.7899
Central African Republic	CAF	2010	3.0222	5.291	3.4434
Central African Republic	CAF	2011	3.0209	5.281	3.4434
Central African Republic	CAF	2012	3.0424	5.243	3.4434
Central African Republic	CAF	2013	2.9678	5.243	1.8345
Central African Republic	CAF	2014	3.2829	5.326	3.5282
Central African Republic	CAF	2015	3.2377	5.477	3.2517
Central African Republic	CAF	2016	3.3380	5.491	3.2517
Central African Republic	CAF	2017	3.4113	5.534	3.2517
Central African Republic	CAF	2018	3.5459	5.517	2.1678
Central African Republic	CAF	2019	3.5340	5.607	2.1678
Central African Republic	CAF	2020	3.3144	6.196	3.2517
Canada	CAN	2000	4.2486	6.829	6.5749
Canada	CAN	2001	4.1885	7.219	6.6808
Canada	CAN	2002	4.1446	7.665	8.2451
Canada	CAN	2003	4.0573	7.574	8.1340
Canada	CAN	2004	4.0625	7.185	8.2235
Canada	CAN	2005	4.0641	6.758	8.2042
Canada	CAN	2006	4.0366	6.484	8.2331
Canada	CAN	2007	4.0111	6.156	8.3276
Canada	CAN	2008	4.0320	6.284	8.3289
Canada	CAN	2009	3.8500	8.460	8.4930
Canada	CAN	2010	3.8889	8.178	8.5133
Canada	CAN	2011	3.9322	7.637	8.5404
Canada	CAN	2012	3.9312	7.392	8.4659
Canada	CAN	2013	3.9236	7.143	8.3515
Canada	CAN	2014	3.9646	7.023	8.1404
Canada	CAN	2015	3.9886	6.945	8.1420
Canada	CAN	2016	3.9617	7.038	8.1799
Canada	CAN	2017	3.9590	6.426	8.1275
Canada	CAN	2018	3.9779	5.837	8.0829
Canada	CAN	2019	3.9568	5.690	8.0829
Canada	CAN	2020	3.8924	9.657	8.0829
Switzerland	CHE	2000	4.0671	2.658	6.2139
Switzerland	CHE	2001	4.0606	2.490	6.2333
Switzerland	CHE	2002	4.0576	2.924	7.5214
Switzerland	CHE	2003	4.0366	4.117	7.5769
Switzerland	CHE	2004	4.0789	4.316	7.5203
Switzerland	CHE	2005	4.2628	4.437	7.6060
Switzerland	CHE	2006	4.3153	3.995	7.9237
Switzerland	CHE	2007	4.3642	3.641	7.8558
Switzerland	CHE	2008	4.4091	3.350	7.8757
Switzerland	CHE	2009	4.3086	4.109	8.4519

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Table D.1 continued from previous page

Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Switzerland	CHE	2010	4.1288	4.808	8.1909
Switzerland	CHE	2011	4.1253	4.409	8.4130
Switzerland	CHE	2012	4.4827	4.491	8.4287
Switzerland	CHE	2013	4.5664	4.747	7.7912
Switzerland	CHE	2014	4.3918	4.826	7.7432
Switzerland	CHE	2015	4.3592	4.801	7.8779
Switzerland	CHE	2016	4.4225	4.918	7.8452
Switzerland	CHE	2017	4.4056	4.797	7.8529
Switzerland	CHE	2018	4.3988	4.713	7.8238
Switzerland	CHE	2019	4.4071	4.394	6.9905
Switzerland	CHE	2020	4.4114	4.817	6.9905
Chile	CHL	2000	3.8742	10.491	4.9116
Chile	CHL	2001	3.9096	10.390	4.3879
Chile	CHL	2002	3.9160	10.168	5.4799
Chile	CHL	2003	3.9812	9.765	5.8132
Chile	CHL	2004	4.0578	10.162	5.7348
Chile	CHL	2005	4.1028	9.340	6.0448
Chile	CHL	2006	4.1448	9.024	6.0467
Chile	CHL	2007	4.2009	8.427	5.9589
Chile	CHL	2008	4.2593	9.285	5.7576
Chile	CHL	2009	4.0467	11.313	5.7875
Chile	CHL	2010	4.0950	8.278	6.2396
Chile	CHL	2011	4.1289	7.277	6.2715
Chile	CHL	2012	4.0796	6.562	5.2969
Chile	CHL	2013	4.0304	6.074	5.2890
Chile	CHL	2014	4.0428	6.483	5.1427
Chile	CHL	2015	3.9381	6.313	5.1612
Chile	CHL	2016	3.8746	6.673	5.1706
Chile	CHL	2017	3.8824	7.257	5.1506
Chile	CHL	2018	3.9223	7.623	4.9710
Chile	CHL	2019	3.9085	7.493	4.9710
Chile	CHL	2020	3.9597	10.934	4.9710
China	CHN	2000	3.6573	3.260	4.1464
China	CHN	2001	3.6273	3.800	4.0525
China	CHN	2002	3.7297	4.240	4.9717
China	CHN	2003	3.9227	4.580	4.8884
China	CHN	2004	4.0637	4.490	5.0002
China	CHN	2005	4.1167	4.520	4.9799
China	CHN	2006	4.1442	4.430	5.0098
China	CHN	2007	4.1009	4.350	4.8990
China	CHN	2008	4.0059	4.590	4.8162
China	CHN	2009	3.7504	4.720	5.5125
China	CHN	2010	3.8717	4.530	5.6603
China	CHN	2011	3.8601	4.550	5.5896
China	CHN	2012	3.7974	4.580	5.5786
China	CHN	2013	3.7539	4.600	5.6331
China	CHN	2014	3.6963	4.630	5.5261
China	CHN	2015	3.5566	4.650	5.5996
China	CHN	2016	3.4711	4.560	5.5395
China	CHN	2017	3.4892	4.470	5.5395
China	CHN	2018	3.4865	4.310	5.5395
China	CHN	2019	3.4481	4.560	5.5395
China	CHN	2020	3.4355	5.000	5.5395
Cote d'Ivoire	CIV	2000	3.6487	4.816	5.0393
Cote d'Ivoire	CIV	2001	3.6540	5.167	4.0393
Cote d'Ivoire	CIV	2002	3.7753	5.474	4.0393
Cote d'Ivoire	CIV	2003	3.7534	5.805	4.0393
Cote d'Ivoire	CIV	2004	3.9017	5.883	4.6143
Cote d'Ivoire	CIV	2005	4.0329	5.999	4.6143
Cote d'Ivoire	CIV	2006	4.0352	6.009	4.6143
Cote d'Ivoire	CIV	2007	3.9774	6.272	5.0049
Cote d'Ivoire	CIV	2008	3.9820	6.379	5.1077
Cote d'Ivoire	CIV	2009	3.9883	6.571	5.6715
Cote d'Ivoire	CIV	2010	4.0096	6.618	5.7769
Cote d'Ivoire	CIV	2011	3.9655	7.135	5.7224
Cote d'Ivoire	CIV	2012	4.0995	7.223	6.0311
Cote d'Ivoire	CIV	2013	4.0592	4.255	5.4648
Cote d'Ivoire	CIV	2014	3.8975	3.285	5.8646
Cote d'Ivoire	CIV	2015	3.8778	2.579	5.7419
Cote d'Ivoire	CIV	2016	3.6937	1.896	5.9308
Cote d'Ivoire	CIV	2017	3.7106	3.272	6.1208
Cote d'Ivoire	CIV	2018	3.6661	2.850	6.0743
Cote d'Ivoire	CIV	2019	3.6487	2.401	6.0743
Cote d'Ivoire	CIV	2020	3.5963	2.584	6.0743
Cameroon	CMR	2000	3.4480	7.536	7.0790
Cameroon	CMR	2001	3.4927	7.460	7.0790
Cameroon	CMR	2002	3.3857	6.709	7.0790
Cameroon	CMR	2003	3.3264	5.908	7.0790
Cameroon	CMR	2004	3.2557	5.091	7.1333
Cameroon	CMR	2005	3.3563	4.400	7.2994
Cameroon	CMR	2006	3.4709	3.729	7.3011
Cameroon	CMR	2007	3.6147	3.063	7.2134
Cameroon	CMR	2008	3.6744	3.387	7.4102
Cameroon	CMR	2009	3.3541	3.744	7.5655
Cameroon	CMR	2010	3.4892	4.110	7.5616
Cameroon	CMR	2011	3.6095	3.987	7.8987
Cameroon	CMR	2012	3.5773	3.835	7.7659
Cameroon	CMR	2013	3.4995	3.685	7.2898
Cameroon	CMR	2014	3.5524	3.534	7.4277
Cameroon	CMR	2015	3.4457	3.518	7.3036
Cameroon	CMR	2016	3.2256	3.528	7.3347

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Cameroon	CMR	2017	3.1020	3.568	7.3303
Cameroon	CMR	2018	3.1644	3.601	7.2765
Cameroon	CMR	2019	3.2918	3.622	7.2765
Cameroon	CMR	2020	3.0551	3.870	7.2765
Congo, Dem. Rep.	COD	2000	2.0549	3.234	5.1065
Congo, Dem. Rep.	COD	2001	3.1114	3.239	5.1065
Congo, Dem. Rep.	COD	2002	3.2330	3.170	5.1065
Congo, Dem. Rep.	COD	2003	3.4703	3.053	5.1065
Congo, Dem. Rep.	COD	2004	3.6515	2.975	5.1065
Congo, Dem. Rep.	COD	2005	3.7511	2.948	5.1065
Congo, Dem. Rep.	COD	2006	3.6566	3.174	4.5565
Congo, Dem. Rep.	COD	2007	3.6593	3.403	5.1065
Congo, Dem. Rep.	COD	2008	3.7834	3.627	4.5565
Congo, Dem. Rep.	COD	2009	3.6809	3.880	5.6667
Congo, Dem. Rep.	COD	2010	3.8164	4.096	5.6667
Congo, Dem. Rep.	COD	2011	3.8465	4.315	5.6667
Congo, Dem. Rep.	COD	2012	3.7451	4.485	5.6667
Congo, Dem. Rep.	COD	2013	3.6441	4.468	3.7778
Congo, Dem. Rep.	COD	2014	3.7324	4.436	5.4417
Congo, Dem. Rep.	COD	2015	3.7883	4.439	5.8158
Congo, Dem. Rep.	COD	2016	3.5310	4.521	5.8058
Congo, Dem. Rep.	COD	2017	3.8629	4.601	5.7253
Congo, Dem. Rep.	COD	2018	4.0729	4.618	5.4889
Congo, Dem. Rep.	COD	2019	3.7587	4.591	5.4889
Congo, Dem. Rep.	COD	2020	3.7716	5.345	5.4889
Congo, Rep.	COG	2000	4.5165	19.870	6.0102
Congo, Rep.	COG	2001	4.5836	19.877	6.0102
Congo, Rep.	COG	2002	4.5787	19.664	6.0102
Congo, Rep.	COG	2003	4.6064	19.871	6.0102
Congo, Rep.	COG	2004	4.5489	19.886	6.0102
Congo, Rep.	COG	2005	4.5104	19.796	6.2852
Congo, Rep.	COG	2006	4.6075	19.587	6.2852
Congo, Rep.	COG	2007	4.7569	19.894	6.2852
Congo, Rep.	COG	2008	4.6923	19.940	6.2852
Congo, Rep.	COG	2009	4.8682	19.833	6.3654
Congo, Rep.	COG	2010	4.4525	19.345	6.4784
Congo, Rep.	COG	2011	4.8911	19.464	6.4784
Congo, Rep.	COG	2012	4.4258	19.512	6.4784
Congo, Rep.	COG	2013	4.6523	19.827	4.1051
Congo, Rep.	COG	2014	4.6517	19.691	5.6577
Congo, Rep.	COG	2015	5.0382	19.978	5.6577
Congo, Rep.	COG	2016	5.1669	20.223	5.6577
Congo, Rep.	COG	2017	4.6845	20.611	5.6577
Congo, Rep.	COG	2018	4.5961	20.701	3.7718
Congo, Rep.	COG	2019	4.0242	20.392	3.7718
Congo, Rep.	COG	2020	4.0826	22.198	5.7193
Colombia	COL	2000	3.2033	20.520	3.9960
Colombia	COL	2001	3.2420	15.040	3.8408
Colombia	COL	2002	3.2244	14.481	5.2662
Colombia	COL	2003	3.3497	13.221	5.4606
Colombia	COL	2004	3.3378	13.717	5.4352
Colombia	COL	2005	3.3713	11.062	5.3650
Colombia	COL	2006	3.4419	11.091	5.3789
Colombia	COL	2007	3.4175	11.204	5.4813
Colombia	COL	2008	3.4618	11.273	5.4778
Colombia	COL	2009	3.3423	12.066	5.9161
Colombia	COL	2010	3.3319	11.153	5.9245
Colombia	COL	2011	3.5020	10.288	5.7909
Colombia	COL	2012	3.4704	9.959	6.0168
Colombia	COL	2013	3.4321	9.246	6.0929
Colombia	COL	2014	3.4399	8.799	6.0260
Colombia	COL	2015	3.4203	8.572	5.9804
Colombia	COL	2016	3.2999	8.922	5.8372
Colombia	COL	2017	3.2811	9.086	5.8213
Colombia	COL	2018	3.3261	9.360	5.8442
Colombia	COL	2019	3.3513	10.280	5.8442
Colombia	COL	2020	3.3162	15.983	5.8442
Cabo Verde	CPV	2010	3.7629	10.670	4.6340
Cabo Verde	CPV	2011	3.9048	10.948	4.6660
Cabo Verde	CPV	2012	3.7604	11.142	4.6250
Cabo Verde	CPV	2013	3.6670	11.392	4.3105
Cabo Verde	CPV	2014	3.7264	11.674	4.3115
Cabo Verde	CPV	2015	3.6466	11.907	4.4192
Cabo Verde	CPV	2016	4.0643	12.077	4.8935
Cabo Verde	CPV	2017	4.1890	12.240	4.8900
Cabo Verde	CPV	2018	4.3608	12.170	4.8795
Cabo Verde	CPV	2019	4.2153	12.128	4.8795
Cabo Verde	CPV	2020	4.1853	14.690	4.8795
Costa Rica	CRI	2000	4.4008	5.080	6.2085
Costa Rica	CRI	2001	4.2842	6.051	6.3090
Costa Rica	CRI	2002	4.3189	6.396	5.6964
Costa Rica	CRI	2003	4.3782	6.654	6.1130
Costa Rica	CRI	2004	4.3603	6.445	5.8738
Costa Rica	CRI	2005	4.4318	6.749	5.9415
Costa Rica	CRI	2006	4.4652	5.926	6.3667
Costa Rica	CRI	2007	4.4177	4.557	6.5018
Costa Rica	CRI	2008	4.3915	4.934	6.3591
Costa Rica	CRI	2009	4.1841	7.824	6.6599
Costa Rica	CRI	2010	4.1129	7.171	6.2126
Costa Rica	CRI	2011	4.1315	9.518	6.2735
Costa Rica	CRI	2012	4.1182	9.110	6.3239

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Costa Rica	CRI	2013	4.0623	8.218	6.1434
Costa Rica	CRI	2014	4.0126	8.499	6.4237
Costa Rica	CRI	2015	3.8183	8.415	6.1941
Costa Rica	CRI	2016	3.7813	8.085	6.1451
Costa Rica	CRI	2017	3.8188	7.729	6.1428
Costa Rica	CRI	2018	3.8653	9.010	6.0202
Costa Rica	CRI	2019	3.8220	10.807	6.0202
Costa Rica	CRI	2020	3.7771	16.432	6.0202
Cyprus	CYP	2003	3.6121	4.153	3.0000
Cyprus	CYP	2004	3.6174	4.770	3.0698
Cyprus	CYP	2005	3.7427	5.481	2.8715
Cyprus	CYP	2006	3.7174	4.593	2.9029
Cyprus	CYP	2007	3.7319	3.946	5.0729
Cyprus	CYP	2008	3.7863	3.756	5.2509
Cyprus	CYP	2009	3.5526	5.594	6.3031
Cyprus	CYP	2010	3.6545	6.359	6.1725
Cyprus	CYP	2011	3.6368	7.942	6.0999
Cyprus	CYP	2012	3.5856	12.097	6.2211
Cyprus	CYP	2013	3.5490	16.131	6.1320
Cyprus	CYP	2014	3.8721	16.277	6.0508
Cyprus	CYP	2015	3.9479	15.026	6.0475
Cyprus	CYP	2016	3.9375	13.006	6.2122
Cyprus	CYP	2017	3.9992	11.155	6.2481
Cyprus	CYP	2018	4.1208	8.504	6.3002
Cyprus	CYP	2019	3.8716	7.155	6.3002
Cyprus	CYP	2020	3.8345	7.755	6.3002
Czechia	CZE	2000	4.5872	8.764	5.6775
Czechia	CZE	2001	4.6267	8.128	5.7985
Czechia	CZE	2002	4.5624	7.280	7.0601
Czechia	CZE	2003	4.6051	7.777	7.1990
Czechia	CZE	2004	4.7506	8.298	6.5290
Czechia	CZE	2005	4.7242	7.927	7.6107
Czechia	CZE	2006	4.7909	7.141	7.6713
Czechia	CZE	2007	4.8413	5.316	7.7820
Czechia	CZE	2008	4.8051	4.392	7.6747
Czechia	CZE	2009	4.6571	6.662	7.6038
Czechia	CZE	2010	4.8118	7.281	7.4969
Czechia	CZE	2011	4.9137	6.712	7.5653
Czechia	CZE	2012	4.9549	6.979	8.0846
Czechia	CZE	2013	4.9691	6.953	8.1263
Czechia	CZE	2014	5.0506	6.108	8.0071
Czechia	CZE	2015	5.0641	5.048	8.3618
Czechia	CZE	2016	5.0388	3.952	8.1195
Czechia	CZE	2017	5.0494	2.893	8.0945
Czechia	CZE	2018	5.0339	2.246	8.1206
Czechia	CZE	2019	4.9922	2.015	8.1206
Czechia	CZE	2020	4.9737	2.550	8.1206
Germany	DEU	2000	3.9765	7.917	2.9793
Germany	DEU	2001	3.9851	7.773	2.9396
Germany	DEU	2002	3.9630	8.482	3.3450
Germany	DEU	2003	3.9798	9.779	3.5394
Germany	DEU	2004	4.0429	10.727	3.6897
Germany	DEU	2005	4.1012	11.193	3.9374
Germany	DEU	2006	4.1918	10.277	3.9293
Germany	DEU	2007	4.2225	8.732	3.8917
Germany	DEU	2008	4.2353	7.508	3.9364
Germany	DEU	2009	4.0743	7.880	5.2847
Germany	DEU	2010	4.2004	7.043	5.3973
Germany	DEU	2011	4.2675	5.967	6.3362
Germany	DEU	2012	4.2633	5.372	6.4443
Germany	DEU	2013	4.2336	5.316	6.4872
Germany	DEU	2014	4.2212	4.979	5.9058
Germany	DEU	2015	4.2405	4.612	7.1837
Germany	DEU	2016	4.2128	4.104	7.4392
Germany	DEU	2017	4.2397	3.781	7.5282
Germany	DEU	2018	4.2515	3.384	7.5442
Germany	DEU	2019	4.2315	3.163	7.5442
Germany	DEU	2020	4.1717	3.881	7.5442
Denmark	DNK	2000	4.0782	4.476	5.5142
Denmark	DNK	2001	4.0749	4.164	5.5852
Denmark	DNK	2002	4.0994	4.274	7.0667
Denmark	DNK	2003	4.0386	5.398	6.8722
Denmark	DNK	2004	4.0542	5.204	7.2611
Denmark	DNK	2005	4.1044	4.830	7.4291
Denmark	DNK	2006	4.1405	3.897	7.4246
Denmark	DNK	2007	4.1405	3.801	7.4673
Denmark	DNK	2008	4.1549	3.683	7.4680
Denmark	DNK	2009	4.0055	6.409	7.4739
Denmark	DNK	2010	4.0197	7.746	7.4646
Denmark	DNK	2011	4.0989	7.769	7.3638
Denmark	DNK	2012	4.1010	7.798	7.3527
Denmark	DNK	2013	4.1017	7.384	7.3396
Denmark	DNK	2014	4.0913	6.925	7.4680
Denmark	DNK	2015	4.0945	6.278	7.3892
Denmark	DNK	2016	4.0592	5.989	7.3168
Denmark	DNK	2017	4.0766	5.833	7.2673
Denmark	DNK	2018	4.0909	5.131	7.2727
Denmark	DNK	2019	4.1040	5.018	7.2727
Denmark	DNK	2020	4.0628	5.637	7.2727
Dominican Republic	DOM	2000	4.1368	6.432	5.5878
Dominican Republic	DOM	2001	4.0055	7.262	5.7451

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Dominican Republic	DOM	2002	3.9435	6.779	5.5403
Dominican Republic	DOM	2003	4.1141	6.938	6.1236
Dominican Republic	DOM	2004	4.1260	6.303	5.9721
Dominican Republic	DOM	2005	3.8013	6.587	6.4728
Dominican Republic	DOM	2006	3.9038	5.654	6.2553
Dominican Republic	DOM	2007	3.8546	5.158	6.3930
Dominican Republic	DOM	2008	3.8562	4.764	6.3160
Dominican Republic	DOM	2009	3.6073	5.467	6.2503
Dominican Republic	DOM	2010	3.7219	5.212	6.3958
Dominican Republic	DOM	2011	3.7999	6.087	6.4044
Dominican Republic	DOM	2012	3.7902	6.722	6.4109
Dominican Republic	DOM	2013	3.7472	7.351	6.4006
Dominican Republic	DOM	2014	3.7025	6.719	6.4671
Dominican Republic	DOM	2015	3.6144	7.605	6.2334
Dominican Republic	DOM	2016	3.5850	7.284	6.0137
Dominican Republic	DOM	2017	3.5623	5.832	6.0216
Dominican Republic	DOM	2018	3.5912	5.861	6.1396
Dominican Republic	DOM	2019	3.5636	6.356	6.1396
Dominican Republic	DOM	2020	3.5523	6.126	6.1396
Algeria	DZA	2000	4.0421	29.770	4.8318
Algeria	DZA	2001	3.8905	27.300	4.8318
Algeria	DZA	2002	3.9123	25.900	4.8318
Algeria	DZA	2003	3.8789	23.720	4.9429
Algeria	DZA	2004	3.9857	17.650	4.9786
Algeria	DZA	2005	4.1270	15.270	5.1609
Algeria	DZA	2006	4.1239	12.270	5.0714
Algeria	DZA	2007	4.1209	13.790	4.6929
Algeria	DZA	2008	4.1873	11.330	4.9331
Algeria	DZA	2009	4.0288	10.160	5.3194
Algeria	DZA	2010	4.0047	9.960	4.9944
Algeria	DZA	2011	4.0128	9.960	4.8693
Algeria	DZA	2012	3.9856	10.970	4.7941
Algeria	DZA	2013	3.9559	9.820	4.6295
Algeria	DZA	2014	3.9050	10.207	5.1494
Algeria	DZA	2015	3.8301	11.206	5.2753
Algeria	DZA	2016	3.7533	10.202	5.3628
Algeria	DZA	2017	3.7563	12.000	5.4180
Algeria	DZA	2018	3.8132	12.137	5.6454
Algeria	DZA	2019	3.7214	12.259	5.6454
Algeria	DZA	2020	3.5514	14.057	5.6454
Ecuador	ECU	2000	3.8980	4.800	2.9750
Ecuador	ECU	2001	3.7708	4.252	3.0579
Ecuador	ECU	2002	3.7473	4.836	3.7667
Ecuador	ECU	2003	3.7315	5.662	3.9056
Ecuador	ECU	2004	3.8155	5.002	3.7659
Ecuador	ECU	2005	3.9242	3.779	3.9290
Ecuador	ECU	2006	3.9958	3.550	3.9166
Ecuador	ECU	2007	4.0360	3.142	3.6835
Ecuador	ECU	2008	4.1209	3.917	3.7367
Ecuador	ECU	2009	3.8749	4.608	4.0924
Ecuador	ECU	2010	4.0232	4.088	4.3146
Ecuador	ECU	2011	4.0809	3.458	4.3122
Ecuador	ECU	2012	4.0276	3.235	4.5347
Ecuador	ECU	2013	3.9860	3.083	2.6800
Ecuador	ECU	2014	3.9519	3.480	3.6491
Ecuador	ECU	2015	3.7134	3.616	5.0526
Ecuador	ECU	2016	3.5238	4.597	4.9406
Ecuador	ECU	2017	3.6232	3.836	4.9790
Ecuador	ECU	2018	3.7302	3.530	4.9768
Ecuador	ECU	2019	3.7311	3.812	4.9768
Ecuador	ECU	2020	3.6870	6.127	4.9768
Egypt, Arab Rep.	EGY	2000	2.9900	8.980	3.3438
Egypt, Arab Rep.	EGY	2001	2.9352	9.260	3.3438
Egypt, Arab Rep.	EGY	2002	3.0686	10.010	4.9167
Egypt, Arab Rep.	EGY	2003	3.2330	10.910	5.3611
Egypt, Arab Rep.	EGY	2004	3.4815	10.320	5.1732
Egypt, Arab Rep.	EGY	2005	3.6748	11.049	4.9785
Egypt, Arab Rep.	EGY	2006	3.7132	10.490	4.8728
Egypt, Arab Rep.	EGY	2007	3.7654	8.800	4.8592
Egypt, Arab Rep.	EGY	2008	3.8248	8.517	4.9623
Egypt, Arab Rep.	EGY	2009	3.5823	9.087	4.9695
Egypt, Arab Rep.	EGY	2010	3.5902	8.757	5.0054
Egypt, Arab Rep.	EGY	2011	3.6348	11.849	4.9137
Egypt, Arab Rep.	EGY	2012	3.5647	12.597	4.9385
Egypt, Arab Rep.	EGY	2013	3.4967	13.154	5.0345
Egypt, Arab Rep.	EGY	2014	3.4224	13.105	5.0691
Egypt, Arab Rep.	EGY	2015	3.2497	13.052	5.0083
Egypt, Arab Rep.	EGY	2016	3.1963	12.450	4.8530
Egypt, Arab Rep.	EGY	2017	3.5588	11.767	4.9710
Egypt, Arab Rep.	EGY	2018	3.6360	9.855	5.2323
Egypt, Arab Rep.	EGY	2019	3.4461	7.851	5.2323
Egypt, Arab Rep.	EGY	2020	3.1274	7.974	5.2323
Spain	ESP	2000	3.8150	13.785	4.0658
Spain	ESP	2001	3.7662	10.348	5.0035
Spain	ESP	2002	3.7140	11.146	5.1403
Spain	ESP	2003	3.6932	11.283	5.1959
Spain	ESP	2004	3.7189	11.090	5.4297
Spain	ESP	2005	3.7304	9.146	5.3269
Spain	ESP	2006	3.7609	8.452	5.3604
Spain	ESP	2007	3.7731	8.232	5.2952
Spain	ESP	2008	3.7594	11.254	5.1383

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Spain	ESP	2009	3.5491	17.857	5.0490
Spain	ESP	2010	3.7066	19.860	4.6997
Spain	ESP	2011	3.8270	21.390	5.4439
Spain	ESP	2012	3.8613	24.789	5.3343
Spain	ESP	2013	3.8782	26.094	5.4101
Spain	ESP	2014	3.9022	24.441	5.5193
Spain	ESP	2015	3.8971	22.057	6.2510
Spain	ESP	2016	3.8783	19.635	6.1687
Spain	ESP	2017	3.9280	17.224	6.1429
Spain	ESP	2018	3.9416	15.255	6.2451
Spain	ESP	2019	3.9192	14.104	6.2451
Spain	ESP	2020	3.8958	15.532	6.2451
Estonia	EST	2000	5.0511	13.360	4.9526
Estonia	EST	2001	4.9966	13.134	5.1914
Estonia	EST	2002	4.9300	10.026	5.5592
Estonia	EST	2003	4.9243	11.288	5.6148
Estonia	EST	2004	4.7660	10.248	5.8114
Estonia	EST	2005	4.8461	8.033	5.7560
Estonia	EST	2006	4.9121	5.915	5.7056
Estonia	EST	2007	4.7780	4.592	5.6039
Estonia	EST	2008	4.7623	5.455	5.5624
Estonia	EST	2009	4.5822	13.548	5.9419
Estonia	EST	2010	4.8065	16.707	5.9065
Estonia	EST	2011	4.9878	12.328	6.1709
Estonia	EST	2012	4.9908	10.021	6.2324
Estonia	EST	2013	4.9176	8.631	6.3078
Estonia	EST	2014	4.8435	7.352	5.9738
Estonia	EST	2015	4.7652	6.412	6.2945
Estonia	EST	2016	4.7408	6.882	6.2638
Estonia	EST	2017	4.7336	5.807	6.2386
Estonia	EST	2018	4.7519	5.412	6.2616
Estonia	EST	2019	4.6734	4.514	6.2616
Estonia	EST	2020	4.6615	6.956	6.2616
Ethiopia	ETH	2005	3.6964	2.497	7.1640
Ethiopia	ETH	2006	3.7112	2.351	7.1659
Ethiopia	ETH	2007	3.5823	2.347	7.1140
Ethiopia	ETH	2008	3.5973	2.335	7.1249
Ethiopia	ETH	2009	3.3544	2.331	7.5998
Ethiopia	ETH	2010	3.5979	2.300	7.5798
Ethiopia	ETH	2011	3.6066	2.275	7.4514
Ethiopia	ETH	2012	3.5635	2.255	7.3629
Ethiopia	ETH	2013	3.4524	2.251	7.5146
Ethiopia	ETH	2014	3.5116	2.359	7.5786
Ethiopia	ETH	2015	3.4135	2.443	7.2220
Ethiopia	ETH	2016	3.2530	2.554	7.2865
Ethiopia	ETH	2017	3.1342	2.662	7.2865
Ethiopia	ETH	2018	3.0620	2.802	6.9326
Ethiopia	ETH	2019	2.8922	2.917	6.9326
Ethiopia	ETH	2020	2.7218	3.994	6.9326
Finland	FIN	2000	4.1580	11.134	4.0425
Finland	FIN	2001	4.0704	10.290	4.2377
Finland	FIN	2002	4.0350	10.423	4.9205
Finland	FIN	2003	4.0210	10.469	4.9205
Finland	FIN	2004	4.0467	10.358	4.8442
Finland	FIN	2005	4.1053	9.602	4.8421
Finland	FIN	2006	4.2126	8.935	4.9623
Finland	FIN	2007	4.2045	6.854	5.0846
Finland	FIN	2008	4.1879	6.369	5.0645
Finland	FIN	2009	3.8881	8.249	5.5480
Finland	FIN	2010	4.0156	8.394	5.6289
Finland	FIN	2011	4.0842	7.781	5.5656
Finland	FIN	2012	4.0620	7.689	5.3849
Finland	FIN	2013	4.0297	8.193	5.2239
Finland	FIN	2014	4.0119	8.663	5.5162
Finland	FIN	2015	3.9428	9.376	5.1819
Finland	FIN	2016	3.9066	8.818	5.2007
Finland	FIN	2017	4.0005	8.640	5.2200
Finland	FIN	2018	4.0327	7.361	5.3353
Finland	FIN	2019	4.0095	6.695	5.3353
Finland	FIN	2020	3.9082	7.759	5.3353
Fiji	FJI	2000	4.4346	4.700	9.4036
Fiji	FJI	2001	4.4557	4.695	9.4036
Fiji	FJI	2002	4.3469	4.769	9.4036
Fiji	FJI	2003	4.3996	4.738	9.4036
Fiji	FJI	2004	4.3693	4.700	9.4036
Fiji	FJI	2005	4.3495	3.886	9.4036
Fiji	FJI	2006	4.3969	3.958	9.4036
Fiji	FJI	2007	4.3258	4.106	9.2151
Fiji	FJI	2008	4.5046	4.185	9.2151
Fiji	FJI	2009	4.2782	4.305	8.9781
Fiji	FJI	2010	4.4351	4.343	9.0100
Fiji	FJI	2011	4.4546	4.406	9.0100
Fiji	FJI	2012	4.4712	4.375	9.0100
Fiji	FJI	2013	4.5421	4.357	6.0066
Fiji	FJI	2014	4.5558	4.325	9.0100
Fiji	FJI	2015	4.1519	4.291	9.0100
Fiji	FJI	2016	4.1860	4.319	9.2933
Fiji	FJI	2017	4.1441	4.324	9.2933
Fiji	FJI	2018	4.2104	4.335	6.1955
Fiji	FJI	2019	4.2369	4.373	6.1955
Fiji	FJI	2020	4.0550	4.649	7.9796

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
France	FRA	2000	3.8913	10.218	5.3263
France	FRA	2001	3.8624	8.610	5.3683
France	FRA	2002	3.7907	8.702	5.3889
France	FRA	2003	3.7635	8.306	5.2778
France	FRA	2004	3.7785	8.914	5.4633
France	FRA	2005	3.7873	8.882	5.5149
France	FRA	2006	3.8016	8.832	5.4851
France	FRA	2007	3.8028	8.008	5.4338
France	FRA	2008	3.8187	7.386	5.6155
France	FRA	2009	3.6565	9.122	5.9195
France	FRA	2010	3.7585	9.279	5.9365
France	FRA	2011	3.8257	9.228	5.8866
France	FRA	2012	3.8359	9.841	5.8676
France	FRA	2013	3.8029	9.913	5.3335
France	FRA	2014	3.7834	10.273	5.6818
France	FRA	2015	3.7864	10.354	5.7044
France	FRA	2016	3.7674	10.057	5.6238
France	FRA	2017	3.7977	9.409	5.6124
France	FRA	2018	3.8122	9.018	5.9076
France	FRA	2019	3.8069	8.415	5.9076
France	FRA	2020	3.6990	8.009	5.9076
Gabon	GAB	2004	4.1792	17.095	7.0784
Gabon	GAB	2005	4.2225	16.910	7.0784
Gabon	GAB	2006	4.2410	17.785	7.0784
Gabon	GAB	2007	4.2191	18.261	7.0784
Gabon	GAB	2008	4.3553	19.191	7.0784
Gabon	GAB	2009	4.1722	19.753	8.6816
Gabon	GAB	2010	4.3968	20.390	8.7092
Gabon	GAB	2011	4.3007	19.941	7.4487
Gabon	GAB	2012	4.6338	19.728	7.3920
Gabon	GAB	2013	4.7118	19.794	7.4344
Gabon	GAB	2014	4.8596	19.916	7.4334
Gabon	GAB	2015	4.7590	19.978	7.4507
Gabon	GAB	2016	4.7165	20.134	7.2673
Gabon	GAB	2017	4.1653	20.303	5.6228
Gabon	GAB	2018	4.2711	20.439	7.3253
Gabon	GAB	2019	4.2293	20.358	7.3253
Gabon	GAB	2020	4.2568	21.270	7.3253
United Kingdom	GBR	2000	3.6215	5.558	7.0974
United Kingdom	GBR	2001	3.6194	4.696	7.2286
United Kingdom	GBR	2002	3.5818	5.037	8.3656
United Kingdom	GBR	2003	3.5331	4.807	8.4767
United Kingdom	GBR	2004	3.5217	4.594	8.4513
United Kingdom	GBR	2005	3.5833	4.835	8.4654
United Kingdom	GBR	2006	3.6759	5.411	8.3652
United Kingdom	GBR	2007	3.5643	5.342	7.9290
United Kingdom	GBR	2008	3.6667	5.705	7.9840
United Kingdom	GBR	2009	3.5977	7.627	8.1925
United Kingdom	GBR	2010	3.7071	7.924	8.2533
United Kingdom	GBR	2011	3.8005	8.169	8.2685
United Kingdom	GBR	2012	3.7762	8.250	8.2709
United Kingdom	GBR	2013	3.7707	7.704	8.2111
United Kingdom	GBR	2014	3.6716	6.363	8.0793
United Kingdom	GBR	2015	3.6224	5.517	8.3961
United Kingdom	GBR	2016	3.6625	4.867	8.3979
United Kingdom	GBR	2017	3.6981	4.452	8.3829
United Kingdom	GBR	2018	3.6979	4.120	8.2466
United Kingdom	GBR	2019	3.7025	3.613	8.2466
United Kingdom	GBR	2020	3.6502	4.472	8.2466
Georgia	GEO	2002	3.5154	12.590	7.3202
Georgia	GEO	2003	3.6923	11.510	6.1601
Georgia	GEO	2004	3.8845	12.620	6.5751
Georgia	GEO	2005	3.9576	13.810	7.6205
Georgia	GEO	2006	4.0872	13.570	7.5714
Georgia	GEO	2007	4.1491	13.280	7.6422
Georgia	GEO	2008	4.1098	17.870	7.6424
Georgia	GEO	2009	3.9575	20.710	7.8734
Georgia	GEO	2010	4.0217	20.203	7.4082
Georgia	GEO	2011	4.0910	19.632	7.0323
Georgia	GEO	2012	4.1212	19.653	6.9560
Georgia	GEO	2013	4.1337	19.416	6.4551
Georgia	GEO	2014	4.1558	17.439	6.6916
Georgia	GEO	2015	4.1340	16.506	6.4508
Georgia	GEO	2016	4.1149	16.604	6.6544
Georgia	GEO	2017	4.1833	13.939	6.6433
Georgia	GEO	2018	4.2651	12.667	6.6322
Georgia	GEO	2019	4.3241	11.565	6.6322
Georgia	GEO	2020	4.2646	11.730	6.6322
Ghana	GHA	2000	4.5347	10.456	6.4444
Ghana	GHA	2001	4.5178	9.602	6.4444
Ghana	GHA	2002	4.3056	8.695	6.4444
Ghana	GHA	2003	4.2836	7.720	6.4722
Ghana	GHA	2004	4.2967	6.756	6.3707
Ghana	GHA	2005	4.3287	5.816	7.0000
Ghana	GHA	2006	3.9157	4.897	6.7250
Ghana	GHA	2007	3.8992	5.092	6.1020
Ghana	GHA	2008	3.9923	5.144	6.1529
Ghana	GHA	2009	3.9761	5.348	6.2294
Ghana	GHA	2010	4.0715	5.384	6.5178
Ghana	GHA	2011	4.2872	4.227	6.6388
Ghana	GHA	2012	4.3291	3.141	6.5624

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Ghana	GHA	2013	3.9098	2.173	5.9164
Ghana	GHA	2014	3.9293	4.415	6.1529
Ghana	GHA	2015	3.8736	6.806	6.6391
Ghana	GHA	2016	3.7577	5.232	6.6362
Ghana	GHA	2017	3.7809	3.369	6.6357
Ghana	GHA	2018	3.7316	3.253	6.6535
Ghana	GHA	2019	3.7505	3.160	6.6535
Ghana	GHA	2020	3.6487	3.313	6.6535
Gambia, The	GMB	2010	3.1300	9.723	8.0977
Gambia, The	GMB	2011	3.4476	10.283	8.1133
Gambia, The	GMB	2012	3.5768	10.346	8.1929
Gambia, The	GMB	2013	3.5606	9.454	8.1898
Gambia, The	GMB	2014	3.7292	8.218	8.3721
Gambia, The	GMB	2015	3.6589	7.260	8.0907
Gambia, The	GMB	2016	3.3913	6.285	7.9484
Gambia, The	GMB	2017	3.7989	5.157	7.8623
Gambia, The	GMB	2018	3.8898	4.127	7.9227
Gambia, The	GMB	2019	3.7275	4.538	7.9227
Gambia, The	GMB	2020	3.5690	5.892	7.9227
Guinea-Bissau	GNB	2004	3.3073	3.238	3.1336
Guinea-Bissau	GNB	2005	3.9186	3.174	3.1336
Guinea-Bissau	GNB	2006	4.0268	3.154	3.1336
Guinea-Bissau	GNB	2007	4.2231	3.149	3.1336
Guinea-Bissau	GNB	2008	4.2136	3.164	3.1336
Guinea-Bissau	GNB	2009	4.2435	3.152	3.8247
Guinea-Bissau	GNB	2010	4.1359	3.137	3.4626
Guinea-Bissau	GNB	2011	3.8073	3.080	3.4626
Guinea-Bissau	GNB	2012	3.4840	3.143	3.4626
Guinea-Bissau	GNB	2013	3.4987	3.162	2.3084
Guinea-Bissau	GNB	2014	3.6250	3.254	3.4641
Guinea-Bissau	GNB	2015	3.7762	3.157	3.4626
Guinea-Bissau	GNB	2016	3.7990	3.123	3.4626
Guinea-Bissau	GNB	2017	3.8518	3.066	3.4626
Guinea-Bissau	GNB	2018	3.7845	3.127	2.3084
Guinea-Bissau	GNB	2019	3.6865	2.413	2.8084
Guinea-Bissau	GNB	2020	3.5308	2.890	4.8183
Greece	GRC	2000	3.5826	11.345	4.1148
Greece	GRC	2001	3.5181	10.764	4.4487
Greece	GRC	2002	3.3301	10.346	4.0847
Greece	GRC	2003	3.3868	9.839	4.1403
Greece	GRC	2004	3.3662	10.628	4.1532
Greece	GRC	2005	3.4478	10.074	4.0142
Greece	GRC	2006	3.4969	8.906	4.3923
Greece	GRC	2007	3.5683	8.351	4.6556
Greece	GRC	2008	3.5953	7.664	4.4324
Greece	GRC	2009	3.4137	9.546	4.4979
Greece	GRC	2010	3.4559	12.719	4.5171
Greece	GRC	2011	3.5689	17.973	4.2928
Greece	GRC	2012	3.7042	24.731	4.5287
Greece	GRC	2013	3.7137	27.686	4.6281
Greece	GRC	2014	3.7346	26.708	4.4994
Greece	GRC	2015	3.6564	24.981	4.8530
Greece	GRC	2016	3.6589	23.514	4.9708
Greece	GRC	2017	3.7607	21.413	4.9823
Greece	GRC	2018	3.8809	19.179	5.0433
Greece	GRC	2019	3.8791	17.045	5.0433
Greece	GRC	2020	3.8636	15.899	5.0433
Guatemala	GTM	2000	3.7102	2.606	4.2870
Guatemala	GTM	2001	3.7811	2.745	4.2420
Guatemala	GTM	2002	4.0573	2.747	3.9839
Guatemala	GTM	2003	4.0662	2.807	4.3728
Guatemala	GTM	2004	4.1198	2.971	4.2125
Guatemala	GTM	2005	4.0824	3.059	4.6632
Guatemala	GTM	2006	4.0996	2.948	4.6364
Guatemala	GTM	2007	4.1108	2.824	4.7065
Guatemala	GTM	2008	4.0583	2.873	4.6704
Guatemala	GTM	2009	3.9218	3.208	4.5480
Guatemala	GTM	2010	4.0041	3.497	4.6792
Guatemala	GTM	2011	4.0540	3.172	4.7291
Guatemala	GTM	2012	3.9961	2.765	4.7989
Guatemala	GTM	2013	3.9507	3.017	4.7012
Guatemala	GTM	2014	3.9175	2.717	4.2469
Guatemala	GTM	2015	3.8185	2.506	4.0553
Guatemala	GTM	2016	3.7270	2.583	3.9897
Guatemala	GTM	2017	3.7136	2.462	3.9438
Guatemala	GTM	2018	3.7269	2.283	3.8686
Guatemala	GTM	2019	3.6950	2.193	5.0352
Guatemala	GTM	2020	3.6441	2.955	5.0352
Guyana	GUY	2002	4.9740	11.810	7.5521
Guyana	GUY	2003	4.9874	11.529	7.5521
Guyana	GUY	2004	5.0620	11.280	7.1354
Guyana	GUY	2005	5.0911	11.080	7.1193
Guyana	GUY	2006	4.1282	10.700	7.0964
Guyana	GUY	2007	4.1532	10.846	7.3227
Guyana	GUY	2008	4.2435	11.027	7.3386
Guyana	GUY	2009	4.1072	11.314	7.8199
Guyana	GUY	2010	4.1946	11.636	8.1303
Guyana	GUY	2011	4.3639	11.819	8.2408
Guyana	GUY	2012	4.4308	12.038	8.2713
Guyana	GUY	2013	4.3564	12.303	7.7866
Guyana	GUY	2014	4.2720	12.639	7.8843

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Guyana	GUY	2015	4.1232	13.004	7.8843
Guyana	GUY	2016	4.1659	13.257	7.1721
Guyana	GUY	2017	4.1727	13.462	5.0516
Guyana	GUY	2018	4.3606	13.627	5.0516
Guyana	GUY	2019	4.6856	13.172	5.0516
Guyana	GUY	2020	4.4826	15.334	7.1068
Hong Kong SAR, China	HKG	2000	5.4920	4.920	8.8819
Hong Kong SAR, China	HKG	2001	5.4469	5.090	9.0059
Hong Kong SAR, China	HKG	2002	5.5070	7.280	9.3455
Hong Kong SAR, China	HKG	2003	5.6568	7.860	9.4566
Hong Kong SAR, China	HKG	2004	5.7633	6.740	9.3346
Hong Kong SAR, China	HKG	2005	5.7875	5.580	9.1452
Hong Kong SAR, China	HKG	2006	5.8296	4.770	9.2027
Hong Kong SAR, China	HKG	2007	5.8291	4.010	9.1930
Hong Kong SAR, China	HKG	2008	5.8524	3.560	9.3118
Hong Kong SAR, China	HKG	2009	5.7635	5.260	9.4559
Hong Kong SAR, China	HKG	2010	5.9089	4.329	9.2907
Hong Kong SAR, China	HKG	2011	5.9633	3.422	9.2926
Hong Kong SAR, China	HKG	2012	5.9875	3.285	9.3259
Hong Kong SAR, China	HKG	2013	6.0402	3.400	9.3025
Hong Kong SAR, China	HKG	2014	5.9557	3.296	9.3828
Hong Kong SAR, China	HKG	2015	5.8453	3.314	9.3317
Hong Kong SAR, China	HKG	2016	5.8032	3.392	9.3730
Hong Kong SAR, China	HKG	2017	5.8102	3.124	9.3666
Hong Kong SAR, China	HKG	2018	5.8002	2.805	9.3660
Hong Kong SAR, China	HKG	2019	5.7251	2.917	9.3660
Hong Kong SAR, China	HKG	2020	5.7816	5.808	9.3660
Honduras	HND	2000	4.6251	3.881	5.6708
Honduras	HND	2001	4.5952	4.000	5.2921
Honduras	HND	2002	4.6388	4.020	5.0288
Honduras	HND	2003	4.6407	5.300	5.2788
Honduras	HND	2004	4.7606	5.990	5.0172
Honduras	HND	2005	4.7776	4.909	5.4189
Honduras	HND	2006	4.7469	3.574	5.6334
Honduras	HND	2007	4.7765	3.211	5.5914
Honduras	HND	2008	4.7871	3.156	4.9624
Honduras	HND	2009	4.4264	3.292	5.0004
Honduras	HND	2010	4.5621	4.119	5.0698
Honduras	HND	2011	4.6809	4.474	4.9914
Honduras	HND	2012	4.6680	3.755	5.0112
Honduras	HND	2013	4.6205	5.646	5.2459
Honduras	HND	2014	4.5749	7.078	5.1841
Honduras	HND	2015	4.5269	6.147	5.1832
Honduras	HND	2016	4.4458	6.727	5.1290
Honduras	HND	2017	4.4627	5.528	5.1324
Honduras	HND	2018	4.4739	5.648	5.1357
Honduras	HND	2019	4.4325	5.698	5.1357
Honduras	HND	2020	4.3413	10.982	5.1357
Croatia	HRV	2000	4.0192	16.064	4.4172
Croatia	HRV	2001	4.0924	15.822	4.7230
Croatia	HRV	2002	4.0667	15.053	5.2141
Croatia	HRV	2003	4.0582	13.924	5.3530
Croatia	HRV	2004	4.0758	13.664	5.4732
Croatia	HRV	2005	4.1085	12.598	5.5814
Croatia	HRV	2006	4.1620	11.130	5.4687
Croatia	HRV	2007	4.1590	9.909	5.5188
Croatia	HRV	2008	4.1817	8.530	6.3052
Croatia	HRV	2009	3.9237	9.202	6.4037
Croatia	HRV	2010	3.9897	11.620	6.3854
Croatia	HRV	2011	4.0471	13.678	6.3594
Croatia	HRV	2012	4.0551	15.935	6.0431
Croatia	HRV	2013	4.0595	17.251	6.6144
Croatia	HRV	2014	4.1186	17.290	6.7711
Croatia	HRV	2015	4.1847	16.175	6.4458
Croatia	HRV	2016	4.2170	13.103	6.3722
Croatia	HRV	2017	4.2876	11.208	6.3649
Croatia	HRV	2018	4.3034	8.432	6.4063
Croatia	HRV	2019	4.3008	6.617	6.4063
Croatia	HRV	2020	4.3301	7.507	6.4063
Haiti	HTI	2000	2.9893	8.454	8.2484
Haiti	HTI	2001	3.0119	9.754	8.3183
Haiti	HTI	2002	3.1233	11.046	8.2484
Haiti	HTI	2003	3.4100	12.180	8.2484
Haiti	HTI	2004	3.3278	13.453	8.0651
Haiti	HTI	2005	3.3094	14.587	8.5560
Haiti	HTI	2006	3.3271	15.908	8.5560
Haiti	HTI	2007	3.1731	16.800	8.5560
Haiti	HTI	2008	3.2880	16.195	8.8310
Haiti	HTI	2009	3.1477	15.351	9.7250
Haiti	HTI	2010	3.4471	15.252	8.2040
Haiti	HTI	2011	3.3711	14.485	8.2770
Haiti	HTI	2012	3.3697	14.100	8.1529
Haiti	HTI	2013	3.3999	13.642	8.1011
Haiti	HTI	2014	3.4315	13.755	8.1011
Haiti	HTI	2015	3.4256	13.724	8.1011
Haiti	HTI	2016	3.4448	13.852	7.9394
Haiti	HTI	2017	3.4740	13.881	7.9382
Haiti	HTI	2018	3.5826	13.878	8.0426
Haiti	HTI	2019	3.5795	14.057	8.0426
Haiti	HTI	2020	3.4198	15.546	8.0426
Hungary	HUN	2000	4.8496	6.563	5.7866

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Hungary	HUN	2001	4.7796	5.671	5.9440
Hungary	HUN	2002	4.6715	5.608	5.9370
Hungary	HUN	2003	4.6701	5.790	6.0203
Hungary	HUN	2004	4.7151	5.832	6.9539
Hungary	HUN	2005	4.7405	7.189	6.8447
Hungary	HUN	2006	4.8888	7.494	6.9627
Hungary	HUN	2007	4.9147	7.406	6.9545
Hungary	HUN	2008	4.9231	7.817	7.0782
Hungary	HUN	2009	4.8114	10.030	7.3137
Hungary	HUN	2010	4.9362	11.172	7.2759
Hungary	HUN	2011	5.0209	11.029	6.8405
Hungary	HUN	2012	5.0415	11.003	6.7813
Hungary	HUN	2013	5.0308	10.177	6.8495
Hungary	HUN	2014	5.0285	7.725	6.5671
Hungary	HUN	2015	5.0245	6.813	7.1814
Hungary	HUN	2016	5.0226	5.115	6.8718
Hungary	HUN	2017	5.0396	4.156	6.8258
Hungary	HUN	2018	5.0257	3.708	6.7075
Hungary	HUN	2019	4.9984	3.419	6.7075
Hungary	HUN	2020	5.0063	4.250	6.7075
Indonesia	IDN	2000	4.1904	6.077	4.1411
Indonesia	IDN	2001	4.0800	6.082	3.9658
Indonesia	IDN	2002	3.9087	6.604	4.6500
Indonesia	IDN	2003	3.8129	6.657	4.8444
Indonesia	IDN	2004	3.8902	7.303	4.7599
Indonesia	IDN	2005	4.0417	7.945	4.9325
Indonesia	IDN	2006	3.9223	7.551	5.1756
Indonesia	IDN	2007	3.8886	8.060	5.2941
Indonesia	IDN	2008	3.9581	7.208	5.1077
Indonesia	IDN	2009	3.6777	6.106	4.8089
Indonesia	IDN	2010	3.6600	5.614	4.6638
Indonesia	IDN	2011	3.7532	5.153	4.6966
Indonesia	IDN	2012	3.7278	4.468	4.7753
Indonesia	IDN	2013	3.7002	4.336	4.5428
Indonesia	IDN	2014	3.6837	4.049	4.6411
Indonesia	IDN	2015	3.5276	4.514	4.5608
Indonesia	IDN	2016	3.4033	4.301	4.6294
Indonesia	IDN	2017	3.4680	3.783	4.6876
Indonesia	IDN	2018	3.5664	4.387	4.7118
Indonesia	IDN	2019	3.4108	3.590	4.7118
Indonesia	IDN	2020	3.3601	4.255	4.7118
India	IND	2000	2.9981	7.624	5.8461
India	IND	2001	2.9608	7.653	5.8637
India	IND	2002	3.0224	7.753	6.9044
India	IND	2003	3.0747	7.680	6.7847
India	IND	2004	3.2140	7.625	7.1191
India	IND	2005	3.3863	7.552	7.2653
India	IND	2006	3.4635	7.552	7.2497
India	IND	2007	3.4402	7.561	7.2733
India	IND	2008	3.7618	7.656	7.2897
India	IND	2009	3.4486	7.664	7.9284
India	IND	2010	3.5384	7.652	8.0501
India	IND	2011	3.7399	7.616	8.0223
India	IND	2012	3.7620	7.666	8.1149
India	IND	2013	3.7382	7.711	6.8353
India	IND	2014	3.6513	7.674	5.9835
India	IND	2015	3.4492	7.631	6.4616
India	IND	2016	3.3064	7.601	6.3661
India	IND	2017	3.3413	7.618	6.7415
India	IND	2018	3.4356	7.652	6.4173
India	IND	2019	3.3527	6.510	6.4173
India	IND	2020	3.1899	7.859	6.4173
Ireland	IRL	2000	4.8535	4.318	5.9220
Ireland	IRL	2001	4.8039	3.684	6.0602
Ireland	IRL	2002	4.6949	4.216	7.4458
Ireland	IRL	2003	4.4892	4.478	7.2792
Ireland	IRL	2004	4.4510	4.491	7.3991
Ireland	IRL	2005	4.4322	4.237	7.4776
Ireland	IRL	2006	4.3608	4.355	7.4817
Ireland	IRL	2007	4.3312	4.980	7.5415
Ireland	IRL	2008	4.3324	6.774	7.5827
Ireland	IRL	2009	4.3248	12.609	7.7675
Ireland	IRL	2010	4.3774	14.534	7.9418
Ireland	IRL	2011	4.3783	15.354	8.1151
Ireland	IRL	2012	4.3694	15.451	7.9715
Ireland	IRL	2013	4.3514	13.735	7.8560
Ireland	IRL	2014	4.3323	11.858	7.2564
Ireland	IRL	2015	4.1935	9.908	8.1325
Ireland	IRL	2016	4.2393	8.374	7.9248
Ireland	IRL	2017	4.1919	6.713	7.9069
Ireland	IRL	2018	4.2326	5.741	7.9263
Ireland	IRL	2019	4.1972	4.950	7.9263
Ireland	IRL	2020	4.1608	5.623	7.9263
Iran, Islamic Rep.	IRN	2000	3.6611	11.696	3.9836
Iran, Islamic Rep.	IRN	2001	3.5090	12.360	3.9836
Iran, Islamic Rep.	IRN	2002	3.6371	12.800	3.9836
Iran, Islamic Rep.	IRN	2003	3.6517	11.529	3.9836
Iran, Islamic Rep.	IRN	2004	3.6697	10.300	4.5336
Iran, Islamic Rep.	IRN	2005	3.7566	11.813	4.5336
Iran, Islamic Rep.	IRN	2006	3.7920	11.519	4.5336
Iran, Islamic Rep.	IRN	2007	3.6434	10.772	4.5336

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Iran, Islamic Rep.	IRN	2008	3.7407	10.630	4.7836
Iran, Islamic Rep.	IRN	2009	3.4436	12.113	4.5511
Iran, Islamic Rep.	IRN	2010	3.5331	13.679	4.6317
Iran, Islamic Rep.	IRN	2011	3.4275	12.491	4.6507
Iran, Islamic Rep.	IRN	2012	3.2472	12.275	4.6118
Iran, Islamic Rep.	IRN	2013	3.3122	10.595	4.6027
Iran, Islamic Rep.	IRN	2014	3.4814	10.680	4.7925
Iran, Islamic Rep.	IRN	2015	3.3378	11.166	4.9669
Iran, Islamic Rep.	IRN	2016	3.2295	12.618	4.8413
Iran, Islamic Rep.	IRN	2017	3.3701	12.232	4.8440
Iran, Islamic Rep.	IRN	2018	3.6455	12.195	4.7448
Iran, Islamic Rep.	IRN	2019	3.4734	10.740	4.7448
Iran, Islamic Rep.	IRN	2020	3.4867	9.687	4.7448
Iceland	ISL	2000	3.9070	1.936	6.6583
Iceland	ISL	2001	3.9526	1.874	6.8907
Iceland	ISL	2002	3.8781	2.988	7.4269
Iceland	ISL	2003	3.8192	3.997	7.5936
Iceland	ISL	2004	3.8477	4.031	7.5843
Iceland	ISL	2005	3.8688	2.547	7.9714
Iceland	ISL	2006	4.0057	2.830	7.8343
Iceland	ISL	2007	3.9742	2.251	7.5815
Iceland	ISL	2008	4.1605	2.946	7.6539
Iceland	ISL	2009	4.0646	7.220	7.8363
Iceland	ISL	2010	4.1269	7.564	7.7184
Iceland	ISL	2011	4.2037	7.028	7.6263
Iceland	ISL	2012	4.1999	6.000	7.6516
Iceland	ISL	2013	4.1292	5.376	7.6691
Iceland	ISL	2014	4.0667	4.897	7.8492
Iceland	ISL	2015	4.0477	3.979	7.7043
Iceland	ISL	2016	3.8837	2.978	7.6711
Iceland	ISL	2017	3.8690	2.742	7.6275
Iceland	ISL	2018	3.9200	2.704	7.5697
Iceland	ISL	2019	3.8664	3.507	7.5697
Iceland	ISL	2020	3.8612	5.478	7.5697
Israel	ISR	2000	3.9242	11.102	3.8128
Israel	ISR	2001	3.8665	11.812	3.8513
Israel	ISR	2002	3.9465	12.888	4.6773
Israel	ISR	2003	3.9476	13.505	4.6495
Israel	ISR	2004	4.0636	13.029	4.8273
Israel	ISR	2005	4.0853	11.342	4.8657
Israel	ISR	2006	4.0813	10.707	4.9772
Israel	ISR	2007	4.0888	9.379	4.7900
Israel	ISR	2008	4.0371	7.704	4.8293
Israel	ISR	2009	3.7944	9.534	5.3241
Israel	ISR	2010	3.8891	8.480	5.2833
Israel	ISR	2011	3.9583	7.139	5.1861
Israel	ISR	2012	3.9395	6.762	5.1717
Israel	ISR	2013	3.8316	6.137	5.3868
Israel	ISR	2014	3.7941	5.789	5.3225
Israel	ISR	2015	3.7272	5.176	5.3831
Israel	ISR	2016	3.6701	4.723	5.4170
Israel	ISR	2017	3.5930	4.140	5.3848
Israel	ISR	2018	3.6060	3.917	5.3643
Israel	ISR	2019	3.5181	3.731	5.3643
Israel	ISR	2020	3.3697	4.169	5.3643
Italy	ITA	2000	3.7302	10.834	4.5750
Italy	ITA	2001	3.7139	9.599	4.6245
Italy	ITA	2002	3.6667	9.211	4.8691
Italy	ITA	2003	3.6298	8.869	4.9247
Italy	ITA	2004	3.6665	7.866	5.3516
Italy	ITA	2005	3.7047	7.730	6.4856
Italy	ITA	2006	3.7815	6.777	6.4048
Italy	ITA	2007	3.8180	6.076	6.1704
Italy	ITA	2008	3.8220	6.723	6.3023
Italy	ITA	2009	3.6164	7.749	6.7560
Italy	ITA	2010	3.7742	8.363	6.4771
Italy	ITA	2011	3.8481	8.359	6.9794
Italy	ITA	2012	3.8541	10.655	6.8764
Italy	ITA	2013	3.8359	12.149	6.5544
Italy	ITA	2014	3.8331	12.683	6.6167
Italy	ITA	2015	3.8508	11.896	6.7664
Italy	ITA	2016	3.8292	11.688	6.7736
Italy	ITA	2017	3.8865	11.211	6.8095
Italy	ITA	2018	3.9149	10.610	6.7861
Italy	ITA	2019	3.9149	9.951	6.7861
Italy	ITA	2020	3.8832	9.164	6.7861
Jamaica	JAM	2000	3.9326	6.762	6.6785
Jamaica	JAM	2001	3.9082	6.646	6.5188
Jamaica	JAM	2002	3.8673	6.619	7.5531
Jamaica	JAM	2003	3.9338	6.535	7.4976
Jamaica	JAM	2004	3.9609	6.539	7.5889
Jamaica	JAM	2005	4.0213	6.577	7.6281
Jamaica	JAM	2006	4.1540	6.605	7.5968
Jamaica	JAM	2007	4.2692	6.606	7.4859
Jamaica	JAM	2008	4.3762	6.666	7.5297
Jamaica	JAM	2009	3.9634	7.314	7.7360
Jamaica	JAM	2010	3.9033	7.630	7.8054
Jamaica	JAM	2011	4.0220	8.034	7.8712
Jamaica	JAM	2012	3.9949	8.695	8.0195
Jamaica	JAM	2013	3.9996	9.698	7.9882
Jamaica	JAM	2014	3.9601	9.046	7.9121

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Jamaica	JAM	2015	3.7862	8.825	7.8566
Jamaica	JAM	2016	3.7472	8.634	7.9597
Jamaica	JAM	2017	3.8740	7.399	7.9399
Jamaica	JAM	2018	3.9454	5.470	7.8551
Jamaica	JAM	2019	3.9276	4.987	7.8551
Jamaica	JAM	2020	3.7740	6.501	7.8551
Jordan	JOR	2000	4.3409	13.700	7.0241
Jordan	JOR	2001	4.3797	14.700	6.9530
Jordan	JOR	2002	4.4052	15.300	8.4215
Jordan	JOR	2003	4.4608	14.500	8.5604
Jordan	JOR	2004	4.6606	14.628	8.4480
Jordan	JOR	2005	4.7670	14.800	8.3947
Jordan	JOR	2006	4.7118	14.000	8.2682
Jordan	JOR	2007	4.7311	13.100	8.2846
Jordan	JOR	2008	4.7008	12.700	8.3821
Jordan	JOR	2009	4.4308	12.900	8.4364
Jordan	JOR	2010	4.4220	12.500	8.4071
Jordan	JOR	2011	4.5134	12.900	8.4418
Jordan	JOR	2012	4.5057	12.200	8.4706
Jordan	JOR	2013	4.4489	12.600	8.4296
Jordan	JOR	2014	4.4425	11.900	7.7773
Jordan	JOR	2015	4.2954	13.075	7.9012
Jordan	JOR	2016	4.2101	15.275	7.6747
Jordan	JOR	2017	4.2094	18.120	7.6831
Jordan	JOR	2018	4.1697	18.257	7.7397
Jordan	JOR	2019	4.1233	16.801	7.7397
Jordan	JOR	2020	4.0537	19.213	7.7397
Japan	JPN	2000	2.8498	4.748	7.0089
Japan	JPN	2001	2.8451	5.020	6.9398
Japan	JPN	2002	2.8917	5.386	8.0549
Japan	JPN	2003	2.9398	5.251	8.3326
Japan	JPN	2004	3.0374	4.734	8.5842
Japan	JPN	2005	3.1351	4.446	8.4684
Japan	JPN	2006	3.2823	4.192	8.5319
Japan	JPN	2007	3.3736	3.888	8.4056
Japan	JPN	2008	3.4090	4.002	8.1877
Japan	JPN	2009	3.0641	5.068	8.3524
Japan	JPN	2010	3.2355	5.102	8.3038
Japan	JPN	2011	3.2932	4.550	8.3254
Japan	JPN	2012	3.2904	4.358	8.3557
Japan	JPN	2013	3.3913	4.038	8.3276
Japan	JPN	2014	3.4236	3.589	8.0329
Japan	JPN	2015	3.3548	3.385	8.1504
Japan	JPN	2016	3.2204	3.132	8.0992
Japan	JPN	2017	3.3248	2.822	8.1308
Japan	JPN	2018	3.3841	2.467	8.1660
Japan	JPN	2019	3.3276	2.351	8.1660
Japan	JPN	2020	3.2293	2.809	8.1660
Kazakhstan	KAZ	2005	4.3711	8.130	7.3536
Kazakhstan	KAZ	2006	4.3366	7.790	7.2546
Kazakhstan	KAZ	2007	4.3410	7.260	6.9693
Kazakhstan	KAZ	2008	4.4034	6.630	6.8718
Kazakhstan	KAZ	2009	4.1287	6.550	7.1706
Kazakhstan	KAZ	2010	4.1194	5.770	7.0804
Kazakhstan	KAZ	2011	4.1422	5.390	7.1267
Kazakhstan	KAZ	2012	4.1565	5.290	7.6439
Kazakhstan	KAZ	2013	4.0328	5.200	7.6345
Kazakhstan	KAZ	2014	3.9989	5.060	7.7204
Kazakhstan	KAZ	2015	3.7257	4.930	7.5282
Kazakhstan	KAZ	2016	3.8051	4.960	7.2128
Kazakhstan	KAZ	2017	3.8395	4.900	7.2404
Kazakhstan	KAZ	2018	3.9537	4.850	7.5617
Kazakhstan	KAZ	2019	3.9576	4.800	7.5617
Kazakhstan	KAZ	2020	3.8899	4.890	7.5617
Kenya	KEN	2000	3.6399	2.889	7.6016
Kenya	KEN	2001	3.6776	2.881	7.6016
Kenya	KEN	2002	3.7081	2.919	7.6016
Kenya	KEN	2003	3.7177	2.873	7.5182
Kenya	KEN	2004	3.8058	2.848	7.5794
Kenya	KEN	2005	3.9010	2.745	7.5520
Kenya	KEN	2006	3.7273	2.680	7.5966
Kenya	KEN	2007	3.7111	2.650	7.7430
Kenya	KEN	2008	3.8052	2.756	7.6671
Kenya	KEN	2009	3.5447	2.818	7.8249
Kenya	KEN	2010	3.6380	2.796	7.5673
Kenya	KEN	2011	3.7801	2.704	7.5593
Kenya	KEN	2012	3.6826	2.682	8.0876
Kenya	KEN	2013	3.5841	2.764	7.8100
Kenya	KEN	2014	3.5806	2.768	7.8106
Kenya	KEN	2015	3.4460	2.762	7.7676
Kenya	KEN	2016	3.2759	2.757	7.7220
Kenya	KEN	2017	3.3086	3.541	7.1532
Kenya	KEN	2018	3.2352	4.284	7.1275
Kenya	KEN	2019	3.1530	5.014	7.1275
Kenya	KEN	2020	3.0601	5.619	7.1275
Kyrgyz Republic	KGZ	2005	4.2781	2.362	6.5106
Kyrgyz Republic	KGZ	2006	4.6009	2.480	6.3442
Kyrgyz Republic	KGZ	2007	4.6829	2.577	6.1703
Kyrgyz Republic	KGZ	2008	4.7478	2.642	6.1830
Kyrgyz Republic	KGZ	2009	4.6100	2.744	6.4351
Kyrgyz Republic	KGZ	2010	4.6430	2.887	6.4559

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Kyrgyz Republic	KGZ	2011	4.6120	2.999	6.3941
Kyrgyz Republic	KGZ	2012	4.7008	3.114	6.1480
Kyrgyz Republic	KGZ	2013	4.7078	3.153	6.1352
Kyrgyz Republic	KGZ	2014	4.6265	3.262	6.1216
Kyrgyz Republic	KGZ	2015	4.4131	3.338	5.9129
Kyrgyz Republic	KGZ	2016	4.4043	3.474	5.5825
Kyrgyz Republic	KGZ	2017	4.3976	3.570	5.7242
Kyrgyz Republic	KGZ	2018	4.4566	3.670	5.9130
Kyrgyz Republic	KGZ	2019	4.3099	4.295	5.9130
Kyrgyz Republic	KGZ	2020	4.2315	4.630	5.9130
Cambodia	KHM	2010	4.4593	0.771	6.4663
Cambodia	KHM	2011	4.6034	0.577	6.5483
Cambodia	KHM	2012	4.6788	0.496	6.6539
Cambodia	KHM	2013	4.4054	0.438	6.7502
Cambodia	KHM	2014	4.3766	0.692	6.6901
Cambodia	KHM	2015	4.5019	0.393	6.5401
Cambodia	KHM	2016	4.4367	0.716	6.5487
Cambodia	KHM	2017	4.4668	0.141	6.5127
Cambodia	KHM	2018	4.5117	0.130	6.4593
Cambodia	KHM	2019	4.5611	0.119	6.4593
Cambodia	KHM	2020	4.6613	0.172	6.4593
Korea, Rep.	KOR	2000	4.0561	4.063	3.7643
Korea, Rep.	KOR	2001	3.9747	3.699	3.8083
Korea, Rep.	KOR	2002	3.9151	3.046	4.4662
Korea, Rep.	KOR	2003	3.9708	3.348	4.6051
Korea, Rep.	KOR	2004	4.0994	3.420	4.8390
Korea, Rep.	KOR	2005	4.0667	3.482	4.8402
Korea, Rep.	KOR	2006	4.0990	3.254	5.0930
Korea, Rep.	KOR	2007	4.1289	3.013	4.2828
Korea, Rep.	KOR	2008	4.4049	2.959	4.0229
Korea, Rep.	KOR	2009	4.2869	3.363	4.4412
Korea, Rep.	KOR	2010	4.3562	3.324	4.6760
Korea, Rep.	KOR	2011	4.4560	2.992	4.6722
Korea, Rep.	KOR	2012	4.4251	2.812	4.7099
Korea, Rep.	KOR	2013	4.3624	2.747	4.5120
Korea, Rep.	KOR	2014	4.3042	3.082	4.8439
Korea, Rep.	KOR	2015	4.1852	3.546	4.7426
Korea, Rep.	KOR	2016	4.0964	3.650	4.8220
Korea, Rep.	KOR	2017	4.1717	3.653	4.8376
Korea, Rep.	KOR	2018	4.1908	3.824	4.7711
Korea, Rep.	KOR	2019	4.1481	3.746	4.7711
Korea, Rep.	KOR	2020	4.0878	3.931	4.7711
Kuwait	KWT	2000	4.2557	0.800	5.6922
Kuwait	KWT	2001	4.2340	0.800	8.1922
Kuwait	KWT	2002	4.1574	1.100	8.1922
Kuwait	KWT	2003	4.1918	1.300	8.1922
Kuwait	KWT	2004	4.2394	1.700	7.8648
Kuwait	KWT	2005	4.3187	1.456	7.7833
Kuwait	KWT	2006	4.2785	1.300	7.7084
Kuwait	KWT	2007	4.2949	1.500	7.6350
Kuwait	KWT	2008	4.3333	1.750	7.5720
Kuwait	KWT	2009	4.2447	1.640	7.3036
Kuwait	KWT	2010	4.3855	1.820	7.1632
Kuwait	KWT	2011	4.4137	2.053	7.0823
Kuwait	KWT	2012	4.4306	2.231	7.0100
Kuwait	KWT	2013	4.4178	2.471	7.0286
Kuwait	KWT	2014	4.4049	2.900	6.8418
Kuwait	KWT	2015	4.3075	2.200	6.6850
Kuwait	KWT	2016	4.2552	2.160	6.5768
Kuwait	KWT	2017	4.2960	2.227	5.4214
Kuwait	KWT	2018	4.3535	2.204	5.5243
Kuwait	KWT	2019	4.2430	2.251	5.5243
Kuwait	KWT	2020	4.1126	3.557	5.5243
Lebanon	LBN	2010	4.1122	6.775	8.1063
Lebanon	LBN	2011	4.1920	7.349	7.9740
Lebanon	LBN	2012	4.1370	7.937	7.9485
Lebanon	LBN	2013	4.0606	8.458	7.9238
Lebanon	LBN	2014	4.0140	8.833	7.5905
Lebanon	LBN	2015	3.8277	9.306	7.1201
Lebanon	LBN	2016	3.8188	9.786	7.5278
Lebanon	LBN	2017	3.8098	10.251	7.4982
Lebanon	LBN	2018	3.7871	10.745	7.4706
Lebanon	LBN	2019	3.8590	11.301	7.4706
Lebanon	LBN	2020	3.8854	13.284	7.4706
Sri Lanka	LKA	2000	4.2726	7.740	5.5794
Sri Lanka	LKA	2001	4.2269	7.900	5.7898
Sri Lanka	LKA	2002	4.1795	8.760	6.4000
Sri Lanka	LKA	2003	4.1348	8.220	6.1222
Sri Lanka	LKA	2004	4.1964	8.380	6.4341
Sri Lanka	LKA	2005	4.1304	7.670	6.6028
Sri Lanka	LKA	2006	4.1047	6.500	6.7540
Sri Lanka	LKA	2007	4.0751	5.970	6.8739
Sri Lanka	LKA	2008	4.0079	5.220	6.8214
Sri Lanka	LKA	2009	3.7221	5.850	6.4894
Sri Lanka	LKA	2010	3.6300	4.784	6.4429
Sri Lanka	LKA	2011	3.8072	4.118	6.3688
Sri Lanka	LKA	2012	3.7027	3.880	6.3629
Sri Lanka	LKA	2013	3.6011	4.186	6.4368
Sri Lanka	LKA	2014	3.6168	4.157	6.4880
Sri Lanka	LKA	2015	3.5452	4.519	6.3943
Sri Lanka	LKA	2016	3.5120	4.242	6.4260

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Sri Lanka	LKA	2017	3.5343	4.046	6.4546
Sri Lanka	LKA	2018	3.5871	4.318	6.4942
Sri Lanka	LKA	2019	3.5784	4.670	6.4942
Sri Lanka	LKA	2020	3.4324	5.364	6.4942
Lesotho	LSO	2005	4.8082	16.086	6.7658
Lesotho	LSO	2006	4.8139	16.107	6.7816
Lesotho	LSO	2007	5.0282	15.997	6.9656
Lesotho	LSO	2008	5.0233	15.907	6.9286
Lesotho	LSO	2009	5.0001	16.160	7.1189
Lesotho	LSO	2010	4.9573	16.113	6.5555
Lesotho	LSO	2011	4.9583	16.157	6.4788
Lesotho	LSO	2012	4.9715	15.813	7.1240
Lesotho	LSO	2013	4.8494	15.970	7.0227
Lesotho	LSO	2014	4.8223	16.104	6.8439
Lesotho	LSO	2015	4.8203	16.254	6.6370
Lesotho	LSO	2016	4.8651	16.170	6.5724
Lesotho	LSO	2017	4.8988	16.401	6.6155
Lesotho	LSO	2018	4.8922	16.625	6.6435
Lesotho	LSO	2019	4.7093	16.876	6.6435
Lesotho	LSO	2020	4.6853	18.399	6.6435
Lithuania	LTU	2000	4.3849	15.931	4.6909
Lithuania	LTU	2001	4.4908	16.840	4.8374
Lithuania	LTU	2002	4.5252	13.008	5.2754
Lithuania	LTU	2003	4.5020	12.874	5.1642
Lithuania	LTU	2004	4.5577	10.684	5.4178
Lithuania	LTU	2005	4.6519	8.325	5.4583
Lithuania	LTU	2006	4.7121	5.780	5.4181
Lithuania	LTU	2007	4.6501	4.250	5.5258
Lithuania	LTU	2008	4.7402	5.826	5.5919
Lithuania	LTU	2009	4.5294	13.785	7.1074
Lithuania	LTU	2010	4.7917	17.814	7.4238
Lithuania	LTU	2011	4.9310	15.390	7.4190
Lithuania	LTU	2012	4.9710	13.365	7.3750
Lithuania	LTU	2013	4.9807	11.770	7.3564
Lithuania	LTU	2014	4.9275	10.698	7.8698
Lithuania	LTU	2015	4.8590	9.120	6.5688
Lithuania	LTU	2016	4.8033	7.862	6.5788
Lithuania	LTU	2017	4.8687	7.073	6.6925
Lithuania	LTU	2018	4.8575	6.147	6.6709
Lithuania	LTU	2019	4.8284	6.255	6.6709
Lithuania	LTU	2020	4.7466	8.487	6.6709
Luxembourg	LUX	2000	4.5281	2.345	6.6111
Luxembourg	LUX	2001	4.6375	1.805	6.6111
Luxembourg	LUX	2002	4.5714	2.621	6.6111
Luxembourg	LUX	2003	4.5982	3.675	6.8889
Luxembourg	LUX	2004	4.6397	5.113	6.4062
Luxembourg	LUX	2005	4.7074	4.488	5.7950
Luxembourg	LUX	2006	4.7606	4.731	5.6377
Luxembourg	LUX	2007	4.5930	4.065	5.4756
Luxembourg	LUX	2008	4.5881	5.060	5.2854
Luxembourg	LUX	2009	4.4507	5.194	5.5206
Luxembourg	LUX	2010	4.3791	4.423	5.7026
Luxembourg	LUX	2011	4.3895	5.122	5.6837
Luxembourg	LUX	2012	4.3513	5.030	5.7992
Luxembourg	LUX	2013	4.2373	6.045	5.8933
Luxembourg	LUX	2014	4.1972	6.044	5.9940
Luxembourg	LUX	2015	4.2092	6.796	6.3497
Luxembourg	LUX	2016	4.1034	6.669	6.3266
Luxembourg	LUX	2017	4.0741	5.523	6.3763
Luxembourg	LUX	2018	4.0447	5.589	6.5302
Luxembourg	LUX	2019	4.0651	5.592	6.5302
Luxembourg	LUX	2020	3.8610	6.766	6.5302
Latvia	LVA	2000	4.1794	14.211	5.4238
Latvia	LVA	2001	4.2082	13.821	5.5196
Latvia	LVA	2002	4.2261	13.829	5.4929
Latvia	LVA	2003	4.2805	12.061	5.4651
Latvia	LVA	2004	4.3859	11.708	5.5701
Latvia	LVA	2005	4.4424	10.033	5.7139
Latvia	LVA	2006	4.4613	7.030	7.0470
Latvia	LVA	2007	4.3860	6.052	7.0229
Latvia	LVA	2008	4.3439	7.739	7.1282
Latvia	LVA	2009	4.2220	17.515	7.1560
Latvia	LVA	2010	4.5046	19.482	6.7114
Latvia	LVA	2011	4.7069	16.206	6.7378
Latvia	LVA	2012	4.7499	15.047	6.8904
Latvia	LVA	2013	4.7087	11.867	6.9179
Latvia	LVA	2014	4.6815	10.846	7.6834
Latvia	LVA	2015	4.6299	9.873	7.6360
Latvia	LVA	2016	4.5907	9.643	7.5577
Latvia	LVA	2017	4.6636	8.715	7.5411
Latvia	LVA	2018	4.6804	7.412	7.6420
Latvia	LVA	2019	4.6514	6.312	7.6420
Latvia	LVA	2020	4.6462	8.098	7.6420
Morocco	MAR	2000	3.7862	13.580	3.7212
Morocco	MAR	2001	3.7252	12.460	3.9820
Morocco	MAR	2002	3.7347	11.590	3.7212
Morocco	MAR	2003	3.6809	11.920	4.0268
Morocco	MAR	2004	3.7369	10.830	3.4168
Morocco	MAR	2005	3.8383	11.010	3.6527
Morocco	MAR	2006	3.8794	9.670	5.0761
Morocco	MAR	2007	3.9974	9.560	4.9914

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Morocco	MAR	2008	4.1205	9.570	5.1510
Morocco	MAR	2009	3.8373	8.960	5.6186
Morocco	MAR	2010	3.9645	9.090	6.0195
Morocco	MAR	2011	4.0925	8.910	6.0214
Morocco	MAR	2012	4.1274	8.990	6.0090
Morocco	MAR	2013	4.0609	9.230	6.0434
Morocco	MAR	2014	4.0763	9.700	5.8286
Morocco	MAR	2015	4.0025	9.460	5.9062
Morocco	MAR	2016	4.0502	9.300	5.7339
Morocco	MAR	2017	4.0750	9.223	5.9488
Morocco	MAR	2018	4.1359	9.271	6.0606
Morocco	MAR	2019	4.1263	9.194	4.8939
Morocco	MAR	2020	4.0690	11.223	4.8939
Moldova	MDA	2005	4.7292	5.633	6.0380
Moldova	MDA	2006	4.6994	4.200	5.7259
Moldova	MDA	2007	4.7391	2.723	5.6855
Moldova	MDA	2008	4.6746	2.073	4.9487
Moldova	MDA	2009	4.4290	2.987	5.3755
Moldova	MDA	2010	4.3485	2.937	5.5024
Moldova	MDA	2011	4.4778	2.648	5.5489
Moldova	MDA	2012	4.4389	2.151	5.5254
Moldova	MDA	2013	4.4236	1.873	5.5407
Moldova	MDA	2014	4.3999	1.425	5.5407
Moldova	MDA	2015	4.3354	1.742	5.4275
Moldova	MDA	2016	4.3307	1.557	5.2180
Moldova	MDA	2017	4.3342	1.586	5.0622
Moldova	MDA	2018	4.3207	1.196	5.6095
Moldova	MDA	2019	4.2968	1.466	5.6095
Moldova	MDA	2020	4.2249	1.186	5.6095
Madagascar	MDG	2000	3.7256	5.800	5.4865
Madagascar	MDG	2001	3.6276	5.350	5.4865
Madagascar	MDG	2002	3.0348	5.502	5.4865
Madagascar	MDG	2003	3.5233	5.010	5.6254
Madagascar	MDG	2004	3.9657	3.946	5.2351
Madagascar	MDG	2005	3.7775	2.620	4.5939
Madagascar	MDG	2006	3.7752	2.946	4.7170
Madagascar	MDG	2007	3.8162	3.205	4.5209
Madagascar	MDG	2008	3.8601	3.438	4.6084
Madagascar	MDG	2009	3.7888	3.887	5.2495
Madagascar	MDG	2010	3.6215	4.280	4.9969
Madagascar	MDG	2011	3.6613	2.512	4.8601
Madagascar	MDG	2012	3.6842	0.599	4.9216
Madagascar	MDG	2013	3.7310	0.996	4.9372
Madagascar	MDG	2014	3.7683	1.386	4.7413
Madagascar	MDG	2015	3.7559	1.785	4.4911
Madagascar	MDG	2016	3.7855	1.947	4.5024
Madagascar	MDG	2017	3.9013	2.119	2.6870
Madagascar	MDG	2018	3.9534	2.297	4.6388
Madagascar	MDG	2019	3.8515	2.469	4.6388
Madagascar	MDG	2020	3.6939	3.284	4.6388
Mexico	MEX	2000	3.8417	2.646	4.5323
Mexico	MEX	2001	3.7294	2.627	4.4351
Mexico	MEX	2002	3.7178	3.003	5.3965
Mexico	MEX	2003	3.7948	3.455	5.5632
Mexico	MEX	2004	3.8633	3.937	5.4737
Mexico	MEX	2005	3.8758	3.558	5.7373
Mexico	MEX	2006	3.9185	3.566	5.7041
Mexico	MEX	2007	3.9316	3.628	5.6447
Mexico	MEX	2008	3.9604	3.874	5.4719
Mexico	MEX	2009	3.9110	5.356	5.4659
Mexico	MEX	2010	4.0082	5.303	5.3952
Mexico	MEX	2011	4.0574	5.175	5.4795
Mexico	MEX	2012	4.0919	4.892	5.4905
Mexico	MEX	2013	4.0618	4.921	5.8139
Mexico	MEX	2014	4.0818	4.819	5.4064
Mexico	MEX	2015	4.1708	4.311	5.6363
Mexico	MEX	2016	4.2393	3.853	5.5803
Mexico	MEX	2017	4.2582	3.419	5.5711
Mexico	MEX	2018	4.3018	3.275	5.5889
Mexico	MEX	2019	4.2646	3.477	5.5889
Mexico	MEX	2020	4.2807	4.440	5.5889
North Macedonia	MKD	2002	4.3492	31.940	5.5518
North Macedonia	MKD	2003	4.3075	36.690	5.6370
North Macedonia	MKD	2004	4.3955	37.161	5.5133
North Macedonia	MKD	2005	4.4331	37.320	5.8925
North Macedonia	MKD	2006	4.4980	36.392	6.6123
North Macedonia	MKD	2007	4.6454	35.231	6.8177
North Macedonia	MKD	2008	4.6980	33.930	7.9524
North Macedonia	MKD	2009	4.4160	32.351	7.8593
North Macedonia	MKD	2010	4.5413	33.135	7.8060
North Macedonia	MKD	2011	4.6971	31.502	7.6530
North Macedonia	MKD	2012	4.6833	31.096	7.6340
North Macedonia	MKD	2013	4.6145	29.017	7.5597
North Macedonia	MKD	2014	4.6820	28.215	7.5133
North Macedonia	MKD	2015	4.6907	26.395	7.2423
North Macedonia	MKD	2016	4.6840	24.312	7.2423
North Macedonia	MKD	2017	4.7743	22.857	6.9774
North Macedonia	MKD	2018	4.8351	21.208	7.1141
North Macedonia	MKD	2019	4.8840	17.414	7.1141
North Macedonia	MKD	2020	4.8219	16.575	7.1141
Mali	MLI	2000	3.8203	1.414	4.7099

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Mali	MLI	2001	3.9009	1.338	4.7099
Mali	MLI	2002	3.8310	1.364	4.7099
Mali	MLI	2003	3.8426	1.281	4.6544
Mali	MLI	2004	3.4934	1.412	4.7126
Mali	MLI	2005	3.4972	1.379	5.5821
Mali	MLI	2006	3.6387	1.425	5.4813
Mali	MLI	2007	3.5934	1.405	5.4625
Mali	MLI	2008	3.7917	1.424	5.4687
Mali	MLI	2009	3.5214	1.423	5.5436
Mali	MLI	2010	3.7161	1.405	5.2269
Mali	MLI	2011	3.6089	1.422	5.5003
Mali	MLI	2012	3.7182	1.482	5.6733
Mali	MLI	2013	3.6629	1.516	5.2807
Mali	MLI	2014	3.6752	1.474	5.1642
Mali	MLI	2015	3.7334	1.401	5.0374
Mali	MLI	2016	3.7153	1.367	5.0444
Mali	MLI	2017	3.6694	1.494	5.0170
Mali	MLI	2018	3.7082	1.620	5.2454
Mali	MLI	2019	3.7616	3.290	5.2454
Mali	MLI	2020	3.8677	3.528	5.2454
Malta	MLT	2000	4.9789	6.324	6.6667
Malta	MLT	2001	4.6722	7.107	6.6667
Malta	MLT	2002	4.6531	6.902	6.6667
Malta	MLT	2003	4.6163	7.488	6.5556
Malta	MLT	2004	4.6140	7.317	6.7505
Malta	MLT	2005	4.5549	6.923	7.0920
Malta	MLT	2006	4.6562	6.798	6.9141
Malta	MLT	2007	4.6460	6.472	6.8865
Malta	MLT	2008	4.5656	5.977	7.0081
Malta	MLT	2009	4.4305	6.889	7.6874
Malta	MLT	2010	4.5545	6.847	6.7641
Malta	MLT	2011	4.6922	6.378	7.1614
Malta	MLT	2012	4.7264	6.197	7.3567
Malta	MLT	2013	4.5062	6.106	7.4845
Malta	MLT	2014	4.4045	5.725	7.7096
Malta	MLT	2015	4.3335	5.389	7.8973
Malta	MLT	2016	4.3830	4.687	8.0214
Malta	MLT	2017	4.1356	4.002	8.0163
Malta	MLT	2018	4.1217	3.658	7.9513
Malta	MLT	2019	4.1693	3.616	7.9513
Malta	MLT	2020	3.9538	4.347	7.9513
Montenegro	MNE	2006	4.4785	24.790	6.9169
Montenegro	MNE	2007	4.5528	19.400	7.0084
Montenegro	MNE	2008	4.5607	17.150	7.9116
Montenegro	MNE	2009	4.1734	19.090	8.2886
Montenegro	MNE	2010	4.1465	19.649	7.6622
Montenegro	MNE	2011	4.2456	19.759	7.1330
Montenegro	MNE	2012	4.2286	19.808	7.1564
Montenegro	MNE	2013	4.1567	19.585	7.3389
Montenegro	MNE	2014	4.1136	18.054	7.2312
Montenegro	MNE	2015	4.0774	17.555	7.0307
Montenegro	MNE	2016	4.1022	17.732	7.4289
Montenegro	MNE	2017	4.1347	16.082	7.6620
Montenegro	MNE	2018	4.1468	15.190	7.6697
Montenegro	MNE	2019	4.1089	15.128	7.6697
Montenegro	MNE	2020	4.0806	17.878	7.6697
Mongolia	MNG	2004	4.5531	6.854	6.8870
Mongolia	MNG	2005	4.4900	7.017	7.0526
Mongolia	MNG	2006	4.4855	7.193	6.7512
Mongolia	MNG	2007	4.5496	7.200	6.6772
Mongolia	MNG	2008	4.6955	5.565	6.8582
Mongolia	MNG	2009	4.4774	5.860	7.2369
Mongolia	MNG	2010	4.4534	6.549	7.1772
Mongolia	MNG	2011	4.6974	4.769	7.1627
Mongolia	MNG	2012	4.5052	3.905	7.0310
Mongolia	MNG	2013	4.4363	4.231	6.9737
Mongolia	MNG	2014	4.5005	4.798	7.0568
Mongolia	MNG	2015	4.2886	4.861	6.9285
Mongolia	MNG	2016	4.3040	7.235	6.6506
Mongolia	MNG	2017	4.5195	6.359	6.8056
Mongolia	MNG	2018	4.5828	5.377	6.5987
Mongolia	MNG	2019	4.5724	9.269	6.5987
Mongolia	MNG	2020	4.5717	6.594	6.5987
Mozambique	MOZ	2002	3.6773	2.903	3.5333
Mozambique	MOZ	2003	3.7495	2.859	3.1833
Mozambique	MOZ	2004	3.7974	2.955	3.4397
Mozambique	MOZ	2005	3.8556	3.037	2.9586
Mozambique	MOZ	2006	4.0111	3.039	2.7667
Mozambique	MOZ	2007	3.9224	3.084	3.1478
Mozambique	MOZ	2008	3.9426	3.114	3.1943
Mozambique	MOZ	2009	3.8753	3.208	3.0621
Mozambique	MOZ	2010	4.1987	3.261	2.7567
Mozambique	MOZ	2011	4.2170	3.296	3.0505
Mozambique	MOZ	2012	4.3197	3.305	3.0831
Mozambique	MOZ	2013	4.4082	3.346	3.0319
Mozambique	MOZ	2014	4.2938	3.377	3.0832
Mozambique	MOZ	2015	4.2832	3.426	3.1717
Mozambique	MOZ	2016	4.2586	3.457	3.1326
Mozambique	MOZ	2017	4.3711	3.539	3.0689
Mozambique	MOZ	2018	4.5182	3.604	3.0668
Mozambique	MOZ	2019	4.3881	3.646	3.0668

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Mozambique	MOZ	2020	4.2752	3.921	3.0668
Mauritania	MRT	2005	4.2474	9.626	7.0156
Mauritania	MRT	2006	4.1690	9.370	7.1435
Mauritania	MRT	2007	4.1957	9.524	6.9767
Mauritania	MRT	2008	4.2714	9.735	6.9899
Mauritania	MRT	2009	4.1060	10.186	7.0595
Mauritania	MRT	2010	4.2658	10.075	6.3845
Mauritania	MRT	2011	4.3452	9.968	6.5670
Mauritania	MRT	2012	4.4515	9.864	6.2575
Mauritania	MRT	2013	4.4906	9.929	5.8747
Mauritania	MRT	2014	4.4740	10.028	6.6319
Mauritania	MRT	2015	4.4971	10.108	6.2603
Mauritania	MRT	2016	4.0833	10.283	5.9005
Mauritania	MRT	2017	4.3950	10.336	5.8545
Mauritania	MRT	2018	4.2492	10.407	5.9973
Mauritania	MRT	2019	4.2944	10.416	5.9973
Mauritania	MRT	2020	4.2116	11.054	5.9973
Mauritius	MUS	2000	4.3468	9.138	4.9008
Mauritius	MUS	2001	4.3479	9.140	4.9649
Mauritius	MUS	2002	4.3909	8.205	6.9648
Mauritius	MUS	2003	4.2806	8.311	6.9925
Mauritius	MUS	2004	4.2690	8.337	7.2097
Mauritius	MUS	2005	4.3894	9.524	6.9277
Mauritius	MUS	2006	4.4396	9.040	7.1117
Mauritius	MUS	2007	4.3207	8.475	7.3043
Mauritius	MUS	2008	4.2544	7.170	7.7021
Mauritius	MUS	2009	4.1293	7.257	7.4620
Mauritius	MUS	2010	4.1964	7.654	7.6320
Mauritius	MUS	2011	4.2043	7.447	7.6780
Mauritius	MUS	2012	4.2281	7.472	7.7770
Mauritius	MUS	2013	4.2083	7.322	7.6020
Mauritius	MUS	2014	4.1983	7.467	7.1635
Mauritius	MUS	2015	4.1281	7.410	7.3841
Mauritius	MUS	2016	4.0198	6.814	6.3554
Mauritius	MUS	2017	4.0144	6.752	6.4115
Mauritius	MUS	2018	3.9977	6.426	7.8969
Mauritius	MUS	2019	3.9920	6.331	7.8969
Mauritius	MUS	2020	3.9641	8.626	7.8969
Malawi	MWI	2000	3.5809	5.048	6.9299
Malawi	MWI	2001	3.6847	5.209	6.9299
Malawi	MWI	2002	3.0855	5.233	6.9299
Malawi	MWI	2003	3.3470	5.157	6.9021
Malawi	MWI	2004	3.3305	4.971	6.6082
Malawi	MWI	2005	3.4578	4.944	6.5726
Malawi	MWI	2006	3.5268	4.960	5.7431
Malawi	MWI	2007	3.5558	4.888	6.6077
Malawi	MWI	2008	3.6275	4.814	6.7382
Malawi	MWI	2009	3.5990	4.754	6.9905
Malawi	MWI	2010	3.4758	4.798	7.2343
Malawi	MWI	2011	3.5009	4.842	7.1079
Malawi	MWI	2012	3.8024	4.952	7.0303
Malawi	MWI	2013	3.9170	4.978	7.1500
Malawi	MWI	2014	3.8584	4.967	6.9388
Malawi	MWI	2015	3.5904	4.954	6.9935
Malawi	MWI	2016	3.7237	5.007	6.8608
Malawi	MWI	2017	3.6351	5.039	6.8559
Malawi	MWI	2018	3.5743	5.014	6.9138
Malawi	MWI	2019	3.5352	4.966	6.9138
Malawi	MWI	2020	3.3778	5.728	6.9138
Malaysia	MYS	2000	5.2581	3.000	6.0119
Malaysia	MYS	2001	5.1607	3.530	6.0004
Malaysia	MYS	2002	5.1496	3.480	7.4245
Malaysia	MYS	2003	5.1393	3.610	7.6467
Malaysia	MYS	2004	5.2248	3.540	7.6362
Malaysia	MYS	2005	5.1836	3.530	7.6730
Malaysia	MYS	2006	5.1873	3.320	7.7189
Malaysia	MYS	2007	5.1146	3.230	7.6434
Malaysia	MYS	2008	5.0378	3.320	7.5716
Malaysia	MYS	2009	4.9340	3.660	7.7540
Malaysia	MYS	2010	4.9589	3.390	7.9391
Malaysia	MYS	2011	4.9379	3.050	7.9599
Malaysia	MYS	2012	4.9039	3.100	7.9147
Malaysia	MYS	2013	4.9002	3.160	8.0435
Malaysia	MYS	2014	4.8750	2.880	7.7720
Malaysia	MYS	2015	4.8263	3.100	8.0466
Malaysia	MYS	2016	4.7789	3.440	8.0114
Malaysia	MYS	2017	4.8644	3.410	8.0397
Malaysia	MYS	2018	4.8646	3.300	8.0403
Malaysia	MYS	2019	4.7988	3.260	8.0403
Malaysia	MYS	2020	4.8373	4.540	8.0403
Namibia	NAM	2000	4.2928	20.300	7.5458
Namibia	NAM	2001	4.3390	20.980	7.6357
Namibia	NAM	2002	4.3294	21.500	7.5458
Namibia	NAM	2003	4.1867	22.052	7.6847
Namibia	NAM	2004	4.1573	22.090	7.4226
Namibia	NAM	2005	4.1606	22.107	7.6068
Namibia	NAM	2006	4.2359	21.876	7.4596
Namibia	NAM	2007	4.2888	22.119	7.3548
Namibia	NAM	2008	4.4649	22.017	7.4465
Namibia	NAM	2009	4.5098	22.254	7.6591
Namibia	NAM	2010	4.4302	22.120	7.7104

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Namibia	NAM	2011	4.4755	19.476	7.6089
Namibia	NAM	2012	4.4919	16.771	7.6454
Namibia	NAM	2013	4.6222	19.028	7.9566
Namibia	NAM	2014	4.6599	18.521	7.8629
Namibia	NAM	2015	4.6423	20.808	8.1415
Namibia	NAM	2016	4.6084	23.352	8.1890
Namibia	NAM	2017	4.5338	21.733	8.1882
Namibia	NAM	2018	4.7476	19.877	8.1749
Namibia	NAM	2019	4.4685	19.921	8.1749
Namibia	NAM	2020	4.4326	21.004	8.1749
Niger	NER	2000	3.4093	1.431	3.1388
Niger	NER	2001	3.3298	1.470	3.1388
Niger	NER	2002	3.2902	1.813	3.1388
Niger	NER	2003	3.3568	2.156	3.1388
Niger	NER	2004	3.4187	2.747	3.1388
Niger	NER	2005	3.5428	3.100	3.1388
Niger	NER	2006	3.4545	2.536	2.8638
Niger	NER	2007	3.4910	2.032	2.8638
Niger	NER	2008	3.5754	1.592	2.8638
Niger	NER	2009	3.7931	1.209	3.2970
Niger	NER	2010	3.8326	0.722	3.8489
Niger	NER	2011	3.8307	0.316	3.8489
Niger	NER	2012	3.7081	2.177	4.2656
Niger	NER	2013	3.6977	1.397	2.5080
Niger	NER	2014	3.6563	0.524	4.2605
Niger	NER	2015	3.6092	0.553	4.2619
Niger	NER	2016	3.4247	0.548	4.2619
Niger	NER	2017	3.4894	0.554	4.2619
Niger	NER	2018	3.4582	0.535	2.8413
Niger	NER	2019	3.4492	0.531	2.8413
Niger	NER	2020	3.4255	0.594	5.1314
Nigeria	NGA	2000	3.7596	3.963	7.3737
Nigeria	NGA	2001	3.6959	3.910	7.3038
Nigeria	NGA	2002	3.2903	3.681	7.7497
Nigeria	NGA	2003	3.5057	3.648	7.7497
Nigeria	NGA	2004	3.6607	3.601	7.8741
Nigeria	NGA	2005	3.7023	3.734	8.1124
Nigeria	NGA	2006	3.5766	3.756	8.1725
Nigeria	NGA	2007	3.5960	3.799	8.2915
Nigeria	NGA	2008	3.6921	3.795	8.3306
Nigeria	NGA	2009	3.4251	3.766	8.3528
Nigeria	NGA	2010	3.5537	3.746	8.0186
Nigeria	NGA	2011	3.7257	3.770	7.8304
Nigeria	NGA	2012	3.5755	3.760	7.8774
Nigeria	NGA	2013	3.3385	3.711	8.2156
Nigeria	NGA	2014	3.3361	3.902	8.4441
Nigeria	NGA	2015	2.9576	4.135	8.9240
Nigeria	NGA	2016	2.8338	4.499	8.9480
Nigeria	NGA	2017	3.0036	4.828	8.9286
Nigeria	NGA	2018	3.2009	5.067	8.9640
Nigeria	NGA	2019	3.2118	5.206	8.9640
Nigeria	NGA	2020	2.8042	5.742	8.9640
Nicaragua	NIC	2000	3.9610	7.162	6.3938
Nicaragua	NIC	2001	3.9210	7.203	6.2508
Nicaragua	NIC	2002	3.9697	7.513	6.9601
Nicaragua	NIC	2003	4.0592	7.600	7.0156
Nicaragua	NIC	2004	4.1904	6.410	7.1215
Nicaragua	NIC	2005	4.2895	5.370	7.1745
Nicaragua	NIC	2006	4.3681	5.310	7.2284
Nicaragua	NIC	2007	4.4210	4.890	7.2071
Nicaragua	NIC	2008	4.4481	6.200	7.0039
Nicaragua	NIC	2009	4.3328	8.160	6.7684
Nicaragua	NIC	2010	4.5199	7.830	6.4427
Nicaragua	NIC	2011	4.6756	6.618	6.3051
Nicaragua	NIC	2012	4.6900	5.208	6.2543
Nicaragua	NIC	2013	4.6496	5.280	6.4085
Nicaragua	NIC	2014	4.6212	4.520	6.5305
Nicaragua	NIC	2015	4.5356	4.700	6.4612
Nicaragua	NIC	2016	4.3802	3.900	6.0276
Nicaragua	NIC	2017	4.5370	3.300	5.9664
Nicaragua	NIC	2018	4.5532	5.200	5.9052
Nicaragua	NIC	2019	4.5576	5.472	5.9052
Nicaragua	NIC	2020	4.5007	6.201	5.9052
Netherlands	NLD	2000	4.6829	2.725	5.7307
Netherlands	NLD	2001	4.6211	2.119	5.7256
Netherlands	NLD	2002	4.5792	2.554	6.4096
Netherlands	NLD	2003	4.5672	3.593	6.4651
Netherlands	NLD	2004	4.6289	4.646	6.5550
Netherlands	NLD	2005	4.7178	5.872	6.6726
Netherlands	NLD	2006	4.7822	5.007	6.6788
Netherlands	NLD	2007	4.8060	4.153	6.6198
Netherlands	NLD	2008	4.8461	3.658	6.6998
Netherlands	NLD	2009	4.6734	4.352	6.7390
Netherlands	NLD	2010	4.8516	4.991	6.7208
Netherlands	NLD	2011	4.9283	4.977	6.7688
Netherlands	NLD	2012	4.9897	5.821	6.7998
Netherlands	NLD	2013	4.9606	7.241	7.0543
Netherlands	NLD	2014	4.9415	7.419	7.3569
Netherlands	NLD	2015	4.9384	6.872	7.3309
Netherlands	NLD	2016	4.9008	6.007	7.4451
Netherlands	NLD	2017	4.9741	4.837	7.5130

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Netherlands	NLD	2018	4.9944	3.832	7.6293
Netherlands	NLD	2019	4.9748	3.379	7.6293
Netherlands	NLD	2020	4.9138	3.820	7.6293
Norway	NOR	2000	4.0089	3.458	4.6204
Norway	NOR	2001	3.9681	3.738	4.7848
Norway	NOR	2002	3.8765	4.022	4.8436
Norway	NOR	2003	3.8554	4.221	5.0102
Norway	NOR	2004	3.9001	4.256	5.2572
Norway	NOR	2005	3.9391	4.381	4.8583
Norway	NOR	2006	3.9844	3.397	4.8856
Norway	NOR	2007	3.9854	2.493	4.9149
Norway	NOR	2008	4.0319	2.521	4.9267
Norway	NOR	2009	3.8686	3.100	5.0674
Norway	NOR	2010	3.8764	3.527	4.3351
Norway	NOR	2011	3.9141	3.196	4.3466
Norway	NOR	2012	3.8798	3.129	4.3767
Norway	NOR	2013	3.8445	3.425	4.4010
Norway	NOR	2014	3.8430	3.486	4.4609
Norway	NOR	2015	3.8386	4.296	5.2326
Norway	NOR	2016	3.7675	4.680	5.1348
Norway	NOR	2017	3.8150	4.164	5.3597
Norway	NOR	2018	3.8583	3.801	5.4180
Norway	NOR	2019	3.8292	3.684	5.4180
Norway	NOR	2020	3.8035	4.424	5.4180
Nepal	NPL	2000	3.7673	10.551	6.8141
Nepal	NPL	2001	3.6052	10.504	6.8141
Nepal	NPL	2002	3.4916	10.632	6.8141
Nepal	NPL	2003	3.6419	10.702	6.8141
Nepal	NPL	2004	3.6178	10.710	6.5141
Nepal	NPL	2005	3.6557	10.617	5.9131
Nepal	NPL	2006	3.6061	10.639	5.9104
Nepal	NPL	2007	3.6543	10.683	6.0006
Nepal	NPL	2008	3.5863	10.613	5.7732
Nepal	NPL	2009	3.7014	10.587	5.8533
Nepal	NPL	2010	3.6223	10.554	5.9014
Nepal	NPL	2011	3.4347	10.640	5.8324
Nepal	NPL	2012	3.4703	10.643	5.8180
Nepal	NPL	2013	3.5150	10.687	5.8802
Nepal	NPL	2014	3.6190	10.617	5.9347
Nepal	NPL	2015	3.4100	10.644	5.7536
Nepal	NPL	2016	3.6705	10.742	5.8203
Nepal	NPL	2017	3.6446	10.660	6.3920
Nepal	NPL	2018	3.7078	10.559	6.4819
Nepal	NPL	2019	3.6617	10.389	6.4819
Nepal	NPL	2020	3.4670	12.975	6.4819
New Zealand	NZL	2000	3.9453	6.130	6.5978
New Zealand	NZL	2001	3.9158	5.433	6.7495
New Zealand	NZL	2002	3.7881	5.282	8.4833
New Zealand	NZL	2003	3.6828	4.745	8.4000
New Zealand	NZL	2004	3.7353	4.005	8.5933
New Zealand	NZL	2005	3.7328	3.807	8.5063
New Zealand	NZL	2006	3.7792	3.857	8.4325
New Zealand	NZL	2007	3.7412	3.661	8.3715
New Zealand	NZL	2008	3.8851	4.167	8.4772
New Zealand	NZL	2009	3.7260	6.121	8.5117
New Zealand	NZL	2010	3.7428	6.557	8.5083
New Zealand	NZL	2011	3.7928	6.491	8.6551
New Zealand	NZL	2012	3.7564	6.931	8.6920
New Zealand	NZL	2013	3.7234	5.839	8.6561
New Zealand	NZL	2014	3.7318	5.428	8.4772
New Zealand	NZL	2015	3.6835	5.415	8.8228
New Zealand	NZL	2016	3.6090	5.147	8.8278
New Zealand	NZL	2017	3.6329	4.736	8.7734
New Zealand	NZL	2018	3.6731	4.335	8.6342
New Zealand	NZL	2019	3.6491	4.109	8.6342
New Zealand	NZL	2020	3.5683	4.595	8.6342
Oman	OMN	2000	4.3027	4.331	8.6323
Oman	OMN	2001	4.3384	4.281	8.6323
Oman	OMN	2002	4.3272	4.328	8.6323
Oman	OMN	2003	4.3132	4.620	8.6323
Oman	OMN	2004	4.3568	4.734	8.6323
Oman	OMN	2005	4.3555	4.626	8.9073
Oman	OMN	2006	4.3389	4.383	7.6988
Oman	OMN	2007	4.4344	4.298	7.9539
Oman	OMN	2008	4.4680	4.142	8.1223
Oman	OMN	2009	4.4092	3.993	8.8476
Oman	OMN	2010	4.4664	3.935	8.7499
Oman	OMN	2011	4.5192	3.958	8.0496
Oman	OMN	2012	4.5262	3.765	8.1528
Oman	OMN	2013	4.6040	3.547	7.4953
Oman	OMN	2014	4.4581	3.449	7.3341
Oman	OMN	2015	4.3492	3.401	5.9858
Oman	OMN	2016	4.2593	3.266	6.2124
Oman	OMN	2017	4.2958	2.522	6.2615
Oman	OMN	2018	4.3014	1.800	6.6929
Oman	OMN	2019	4.2580	2.040	6.6929
Oman	OMN	2020	4.4025	2.940	6.6929
Pakistan	PAK	2000	2.9955	0.634	5.7150
Pakistan	PAK	2001	2.9957	0.629	5.7150
Pakistan	PAK	2002	3.0724	0.635	5.7150
Pakistan	PAK	2003	3.1010	0.630	5.4372

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Table D.1 continued from previous page

Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Pakistan	PAK	2004	3.1652	0.608	6.1062
Pakistan	PAK	2005	3.3505	0.585	5.7403
Pakistan	PAK	2006	3.3633	0.582	5.6572
Pakistan	PAK	2007	3.3100	0.398	5.6349
Pakistan	PAK	2008	3.4335	0.423	5.5837
Pakistan	PAK	2009	3.2680	0.535	5.5853
Pakistan	PAK	2010	3.4047	0.653	5.7746
Pakistan	PAK	2011	3.4044	0.796	5.8815
Pakistan	PAK	2012	3.3126	3.667	5.7706
Pakistan	PAK	2013	3.2948	2.954	5.4925
Pakistan	PAK	2014	3.2827	1.827	5.2229
Pakistan	PAK	2015	3.0951	3.566	4.9266
Pakistan	PAK	2016	3.0650	2.285	4.9138
Pakistan	PAK	2017	3.1520	3.215	4.9650
Pakistan	PAK	2018	3.1548	4.083	5.0916
Pakistan	PAK	2019	3.1335	4.830	5.0916
Pakistan	PAK	2020	3.1168	6.127	5.0916
Panama	PAN	2000	3.5672	6.264	5.6135
Panama	PAN	2001	3.4540	6.372	5.3628
Panama	PAN	2002	3.3980	6.362	5.0202
Panama	PAN	2003	3.3686	6.346	5.3257
Panama	PAN	2004	3.4029	6.127	5.0757
Panama	PAN	2005	4.6067	6.002	5.1635
Panama	PAN	2006	4.6131	5.822	5.4403
Panama	PAN	2007	4.6222	5.694	5.4591
Panama	PAN	2008	4.5986	5.647	5.3931
Panama	PAN	2009	4.4830	5.864	5.3205
Panama	PAN	2010	4.5186	5.845	5.1000
Panama	PAN	2011	4.6237	4.030	5.1906
Panama	PAN	2012	4.6260	3.691	5.1779
Panama	PAN	2013	4.3863	3.674	5.4715
Panama	PAN	2014	4.2856	4.391	5.1000
Panama	PAN	2015	4.1060	4.335	5.0807
Panama	PAN	2016	3.9846	4.717	5.0550
Panama	PAN	2017	3.9385	5.338	5.0219
Panama	PAN	2018	3.9363	5.161	4.9965
Panama	PAN	2019	3.8506	6.256	4.9965
Panama	PAN	2020	3.7484	14.663	4.9965
Peru	PER	2000	3.3240	4.958	6.4849
Peru	PER	2001	3.3165	5.063	6.0615
Peru	PER	2002	3.3236	4.840	6.4965
Peru	PER	2003	3.3947	4.150	6.5799
Peru	PER	2004	3.5355	4.710	6.5165
Peru	PER	2005	3.6705	4.870	6.5062
Peru	PER	2006	3.7886	4.170	6.4926
Peru	PER	2007	3.8619	4.080	6.5323
Peru	PER	2008	3.9203	4.030	7.3721
Peru	PER	2009	3.7055	3.960	7.3111
Peru	PER	2010	3.8012	3.600	7.1286
Peru	PER	2011	3.8969	3.477	7.0226
Peru	PER	2012	3.8268	3.238	6.9393
Peru	PER	2013	3.7582	3.575	6.9052
Peru	PER	2014	3.6969	3.208	7.0760
Peru	PER	2015	3.6284	3.272	6.9044
Peru	PER	2016	3.6355	3.741	6.9316
Peru	PER	2017	3.6762	3.691	6.9425
Peru	PER	2018	3.7137	3.492	6.8749
Peru	PER	2019	3.6599	3.379	6.8749
Peru	PER	2020	3.6271	7.179	6.8749
Philippines	PHL	2000	4.4972	3.767	5.3073
Philippines	PHL	2001	4.4425	3.698	5.0316
Philippines	PHL	2002	4.5054	3.615	5.7162
Philippines	PHL	2003	4.5058	3.527	5.6606
Philippines	PHL	2004	4.5031	3.554	5.7056
Philippines	PHL	2005	4.4364	3.795	5.9520
Philippines	PHL	2006	4.3758	4.052	5.9163
Philippines	PHL	2007	4.2418	3.434	5.8598
Philippines	PHL	2008	4.0991	3.720	5.9264
Philippines	PHL	2009	3.8694	3.858	6.0172
Philippines	PHL	2010	3.9660	3.605	6.1092
Philippines	PHL	2011	3.8710	3.592	6.0842
Philippines	PHL	2012	3.8073	3.504	6.1116
Philippines	PHL	2013	3.7641	3.497	6.7837
Philippines	PHL	2014	3.7835	3.600	6.6474
Philippines	PHL	2015	3.7748	3.068	6.7846
Philippines	PHL	2016	3.7987	2.695	6.7946
Philippines	PHL	2017	3.9501	2.552	6.9430
Philippines	PHL	2018	3.9636	2.338	7.0507
Philippines	PHL	2019	3.8842	2.237	7.0507
Philippines	PHL	2020	3.7552	2.522	7.0507
Papua New Guinea	PNG	2000	4.5241	2.920	8.8211
Papua New Guinea	PNG	2001	4.5363	2.801	8.8211
Papua New Guinea	PNG	2002	4.5285	2.755	8.8211
Papua New Guinea	PNG	2003	4.6157	2.628	8.8211
Papua New Guinea	PNG	2004	4.6799	2.526	8.8211
Papua New Guinea	PNG	2005	4.6328	2.387	8.8211
Papua New Guinea	PNG	2006	4.2988	2.287	8.8211
Papua New Guinea	PNG	2007	4.3374	2.172	8.8211
Papua New Guinea	PNG	2008	4.3262	2.169	8.8211
Papua New Guinea	PNG	2009	4.1350	2.089	8.6382
Papua New Guinea	PNG	2010	4.1747	2.002	8.6934

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Table D.1 continued from previous page

Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Papua New Guinea	PNG	2011	4.1298	2.620	8.6934
Papua New Guinea	PNG	2012	3.9521	2.631	8.6934
Papua New Guinea	PNG	2013	3.9785	2.692	5.7956
Papua New Guinea	PNG	2014	4.0095	2.536	5.6132
Papua New Guinea	PNG	2015	3.9250	2.503	5.6123
Papua New Guinea	PNG	2016	3.9006	2.472	5.7956
Papua New Guinea	PNG	2017	4.0467	2.569	8.6934
Papua New Guinea	PNG	2018	4.0647	2.635	5.7956
Papua New Guinea	PNG	2019	4.1092	2.634	5.7956
Papua New Guinea	PNG	2020	3.9725	2.883	7.4774
Poland	POL	2000	3.8438	14.928	4.9635
Poland	POL	2001	3.8051	18.435	5.0238
Poland	POL	2002	3.8772	20.211	6.3991
Poland	POL	2003	4.0224	19.899	6.5658
Poland	POL	2004	4.1633	18.822	6.3895
Poland	POL	2005	4.1310	17.592	6.5640
Poland	POL	2006	4.2303	13.794	6.4475
Poland	POL	2007	4.2652	9.551	6.6095
Poland	POL	2008	4.2600	7.069	6.5166
Poland	POL	2009	4.1722	8.131	7.4539
Poland	POL	2010	4.2577	9.578	7.4238
Poland	POL	2011	4.3261	9.576	7.6727
Poland	POL	2012	4.3460	10.031	7.6703
Poland	POL	2013	4.3773	10.293	7.7000
Poland	POL	2014	4.4046	8.971	7.7267
Poland	POL	2015	4.4117	7.475	7.7280
Poland	POL	2016	4.4453	6.141	7.1417
Poland	POL	2017	4.4842	4.867	7.1162
Poland	POL	2018	4.4949	3.835	7.1020
Poland	POL	2019	4.4802	3.267	7.1020
Poland	POL	2020	4.4816	3.155	7.1020
Portugal	PRT	2000	3.9932	3.806	3.9120
Portugal	PRT	2001	3.9570	3.829	4.0019
Portugal	PRT	2002	3.8920	4.497	4.2655
Portugal	PRT	2003	3.8668	6.132	4.3488
Portugal	PRT	2004	3.8693	6.319	5.3300
Portugal	PRT	2005	3.9521	7.582	5.2592
Portugal	PRT	2006	4.0127	7.649	5.2659
Portugal	PRT	2007	4.0249	7.965	5.2919
Portugal	PRT	2008	4.0524	7.553	5.1775
Portugal	PRT	2009	3.8578	9.432	5.1648
Portugal	PRT	2010	3.9764	10.771	4.7642
Portugal	PRT	2011	4.0616	12.682	4.9366
Portugal	PRT	2012	4.0989	15.531	5.7863
Portugal	PRT	2013	4.1128	16.188	6.4585
Portugal	PRT	2014	4.1241	13.897	6.1119
Portugal	PRT	2015	4.1154	12.447	5.8747
Portugal	PRT	2016	4.0906	11.068	5.8699
Portugal	PRT	2017	4.1556	8.869	5.8597
Portugal	PRT	2018	4.1748	6.994	5.8058
Portugal	PRT	2019	4.1777	6.464	5.8058
Portugal	PRT	2020	4.1060	6.801	5.8058
Paraguay	PRY	2000	3.9193	7.610	3.1428
Paraguay	PRY	2001	3.9783	6.206	3.1591
Paraguay	PRY	2002	4.0182	9.393	2.9870
Paraguay	PRY	2003	4.1364	6.814	3.2648
Paraguay	PRY	2004	4.1278	6.513	3.0643
Paraguay	PRY	2005	4.1583	4.825	3.3193
Paraguay	PRY	2006	4.1138	5.277	3.4068
Paraguay	PRY	2007	4.0821	4.713	3.6394
Paraguay	PRY	2008	4.1388	4.415	3.5936
Paraguay	PRY	2009	3.9847	5.460	4.3406
Paraguay	PRY	2010	4.1054	4.569	4.6520
Paraguay	PRY	2011	4.0882	4.670	4.6261
Paraguay	PRY	2012	4.0363	4.085	4.6868
Paraguay	PRY	2013	4.0271	4.385	4.3955
Paraguay	PRY	2014	3.9890	5.034	4.1108
Paraguay	PRY	2015	3.9415	4.556	4.2473
Paraguay	PRY	2016	3.9232	5.255	4.5132
Paraguay	PRY	2017	3.9648	6.138	4.4483
Paraguay	PRY	2018	4.0187	6.217	4.5348
Paraguay	PRY	2019	3.9906	6.595	4.5348
Paraguay	PRY	2020	3.9679	7.548	4.5348
Qatar	QAT	2010	4.3629	0.450	7.7544
Qatar	QAT	2011	4.4009	0.560	7.9081
Qatar	QAT	2012	4.4733	0.480	8.0738
Qatar	QAT	2013	4.4124	0.280	8.0530
Qatar	QAT	2014	4.3640	0.200	6.5221
Qatar	QAT	2015	4.2249	0.170	6.5096
Qatar	QAT	2016	4.0758	0.150	6.4697
Qatar	QAT	2017	4.1019	0.140	6.2841
Qatar	QAT	2018	4.1526	0.110	6.0315
Qatar	QAT	2019	4.0587	0.100	6.0315
Qatar	QAT	2020	3.9807	0.140	6.0315
Romania	ROU	2000	4.1470	6.969	6.7620
Romania	ROU	2001	4.2009	6.561	5.9367
Romania	ROU	2002	4.2324	8.112	5.5240
Romania	ROU	2003	4.2773	6.950	5.3295
Romania	ROU	2004	4.3177	7.719	5.4830
Romania	ROU	2005	4.2381	7.174	5.6275
Romania	ROU	2006	4.2272	7.270	5.3698

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Romania	ROU	2007	4.1505	6.413	6.6821
Romania	ROU	2008	4.1325	5.787	6.6910
Romania	ROU	2009	3.9982	6.859	7.0481
Romania	ROU	2010	4.1847	6.959	6.8736
Romania	ROU	2011	4.2826	7.177	6.9931
Romania	ROU	2012	4.2695	6.794	7.4313
Romania	ROU	2013	4.2960	7.096	7.4707
Romania	ROU	2014	4.3019	6.802	7.2480
Romania	ROU	2015	4.2948	6.812	7.2728
Romania	ROU	2016	4.3112	5.901	7.3702
Romania	ROU	2017	4.3088	4.927	7.4349
Romania	ROU	2018	4.2886	4.187	7.4079
Romania	ROU	2019	4.2327	3.912	7.4079
Romania	ROU	2020	4.1684	5.035	7.4079
Russian Federation	RUS	2000	4.0555	10.581	5.1507
Russian Federation	RUS	2001	3.9272	8.978	5.1284
Russian Federation	RUS	2002	3.8858	7.875	5.8818
Russian Federation	RUS	2003	3.8972	8.210	6.0762
Russian Federation	RUS	2004	3.8602	7.763	5.9177
Russian Federation	RUS	2005	3.8780	7.124	5.9823
Russian Federation	RUS	2006	3.8556	7.055	5.9022
Russian Federation	RUS	2007	3.7947	6.002	5.8904
Russian Federation	RUS	2008	3.8280	6.205	6.0743
Russian Federation	RUS	2009	3.7013	8.301	6.1046
Russian Federation	RUS	2010	3.7513	7.407	5.9374
Russian Federation	RUS	2011	3.7219	6.571	5.9539
Russian Federation	RUS	2012	3.6676	5.484	6.1083
Russian Federation	RUS	2013	3.6283	5.513	5.9088
Russian Federation	RUS	2014	3.6655	5.212	5.6199
Russian Federation	RUS	2015	3.6686	5.615	5.6933
Russian Federation	RUS	2016	3.6126	5.591	5.5139
Russian Federation	RUS	2017	3.6260	5.238	5.5244
Russian Federation	RUS	2018	3.7329	4.871	5.9047
Russian Federation	RUS	2019	3.6835	4.513	5.9047
Russian Federation	RUS	2020	3.6485	5.620	5.9047
Rwanda	RWA	2000	2.5426	11.731	6.9974
Rwanda	RWA	2001	2.9265	11.760	6.9974
Rwanda	RWA	2002	2.7676	11.499	6.9974
Rwanda	RWA	2003	2.7120	11.696	6.9974
Rwanda	RWA	2004	2.7772	11.731	6.9974
Rwanda	RWA	2005	3.0114	11.854	7.2974
Rwanda	RWA	2006	3.1015	11.632	7.2974
Rwanda	RWA	2007	3.1480	11.626	7.2974
Rwanda	RWA	2008	3.3264	11.570	9.1224
Rwanda	RWA	2009	3.3029	11.663	8.4697
Rwanda	RWA	2010	3.3398	11.673	8.4424
Rwanda	RWA	2011	3.5933	11.775	8.3152
Rwanda	RWA	2012	3.6314	11.701	8.3643
Rwanda	RWA	2013	3.6488	11.785	8.3926
Rwanda	RWA	2014	3.6573	11.844	8.3926
Rwanda	RWA	2015	3.5797	11.838	8.5921
Rwanda	RWA	2016	3.5360	11.801	8.5192
Rwanda	RWA	2017	3.5586	11.875	8.2794
Rwanda	RWA	2018	3.6165	10.759	8.2722
Rwanda	RWA	2019	3.6292	11.236	8.2722
Rwanda	RWA	2020	3.6590	11.829	8.2722
Saudi Arabia	SAU	2010	4.2162	5.550	8.2000
Saudi Arabia	SAU	2011	4.2893	5.770	8.0906
Saudi Arabia	SAU	2012	4.2815	5.622	8.0012
Saudi Arabia	SAU	2013	4.2581	5.600	7.5799
Saudi Arabia	SAU	2014	4.1834	5.877	7.1412
Saudi Arabia	SAU	2015	3.9990	5.600	7.3291
Saudi Arabia	SAU	2016	3.8495	5.600	6.9104
Saudi Arabia	SAU	2017	3.8727	5.890	6.9334
Saudi Arabia	SAU	2018	3.8849	6.029	7.1020
Saudi Arabia	SAU	2019	3.8429	5.636	7.1020
Saudi Arabia	SAU	2020	3.7040	7.660	7.1020
Senegal	SEN	2000	3.7028	2.668	3.5240
Senegal	SEN	2001	3.7376	2.700	3.5240
Senegal	SEN	2002	3.7653	2.828	3.5240
Senegal	SEN	2003	3.7282	2.794	3.5240
Senegal	SEN	2004	3.7646	2.788	3.5240
Senegal	SEN	2005	3.8310	2.703	3.4943
Senegal	SEN	2006	3.8068	2.770	3.8837
Senegal	SEN	2007	3.8452	2.808	4.0107
Senegal	SEN	2008	3.9437	2.822	4.1578
Senegal	SEN	2009	3.7301	2.814	4.5942
Senegal	SEN	2010	3.7628	2.803	4.6017
Senegal	SEN	2011	3.8595	2.853	4.3843
Senegal	SEN	2012	3.9273	3.888	4.3731
Senegal	SEN	2013	3.8856	4.986	4.0133
Senegal	SEN	2014	3.8502	5.841	3.6954
Senegal	SEN	2015	3.8324	6.757	3.5923
Senegal	SEN	2016	3.7527	4.455	3.5678
Senegal	SEN	2017	3.8348	4.078	3.5796
Senegal	SEN	2018	3.9237	3.455	3.6025
Senegal	SEN	2019	3.9637	2.863	3.6025
Senegal	SEN	2020	3.8683	3.437	3.6025
Singapore	SGP	2000	5.6471	3.700	6.2065
Singapore	SGP	2001	5.5789	3.760	6.2313
Singapore	SGP	2002	5.5649	5.650	7.5493

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Singapore	SGP	2003	5.7146	5.930	7.5493
Singapore	SGP	2004	5.7795	5.840	7.6847
Singapore	SGP	2005	5.8177	5.590	7.6535
Singapore	SGP	2006	5.8392	4.480	7.6515
Singapore	SGP	2007	5.7393	3.900	7.6913
Singapore	SGP	2008	5.8284	3.960	7.7381
Singapore	SGP	2009	5.5819	5.860	7.7779
Singapore	SGP	2010	5.6216	4.120	7.7219
Singapore	SGP	2011	5.6259	3.890	7.6958
Singapore	SGP	2012	5.5875	3.720	7.6594
Singapore	SGP	2013	5.5399	3.860	7.6026
Singapore	SGP	2014	5.5292	3.740	7.7999
Singapore	SGP	2015	5.3500	3.790	7.2052
Singapore	SGP	2016	5.2577	4.080	7.6692
Singapore	SGP	2017	5.3185	4.200	7.6703
Singapore	SGP	2018	5.3368	3.613	7.6821
Singapore	SGP	2019	5.2953	3.100	7.6821
Singapore	SGP	2020	5.2897	4.100	7.6821
Sierra Leone	SLE	2000	3.2378	4.080	5.6750
Sierra Leone	SLE	2001	2.5296	4.154	5.6750
Sierra Leone	SLE	2002	2.7841	3.903	5.6750
Sierra Leone	SLE	2003	2.9143	3.879	5.6750
Sierra Leone	SLE	2004	2.9442	3.420	5.6750
Sierra Leone	SLE	2005	2.9838	3.716	5.6750
Sierra Leone	SLE	2006	2.9443	3.889	5.6750
Sierra Leone	SLE	2007	2.9441	4.007	5.6750
Sierra Leone	SLE	2008	2.8925	4.128	5.6750
Sierra Leone	SLE	2009	2.9442	4.269	5.3917
Sierra Leone	SLE	2010	3.2605	4.413	5.6667
Sierra Leone	SLE	2011	3.7499	4.540	5.8513
Sierra Leone	SLE	2012	3.7929	4.552	5.8524
Sierra Leone	SLE	2013	3.8974	4.538	5.8534
Sierra Leone	SLE	2014	3.7036	4.678	5.6312
Sierra Leone	SLE	2015	3.4039	4.606	5.2475
Sierra Leone	SLE	2016	3.3254	4.294	5.1549
Sierra Leone	SLE	2017	3.4809	3.834	5.1648
Sierra Leone	SLE	2018	3.3964	3.192	3.5556
Sierra Leone	SLE	2019	3.4888	3.203	3.5556
Sierra Leone	SLE	2020	3.6475	3.508	5.4759
El Salvador	SLV	2000	4.2037	6.960	5.5401
El Salvador	SLV	2001	4.1627	6.960	5.8190
El Salvador	SLV	2002	4.1681	6.200	6.1212
El Salvador	SLV	2003	4.2057	6.900	6.4823
El Salvador	SLV	2004	4.2513	6.800	6.4561
El Salvador	SLV	2005	4.2308	7.220	6.5197
El Salvador	SLV	2006	4.2635	6.570	6.4660
El Salvador	SLV	2007	4.3235	6.410	6.4312
El Salvador	SLV	2008	4.3868	5.880	6.4506
El Salvador	SLV	2009	4.1523	7.330	6.4869
El Salvador	SLV	2010	4.2486	4.893	6.4718
El Salvador	SLV	2011	4.3214	4.297	6.2739
El Salvador	SLV	2012	4.2895	3.843	4.7225
El Salvador	SLV	2013	4.3034	3.693	4.4613
El Salvador	SLV	2014	4.2485	4.154	5.1892
El Salvador	SLV	2015	4.2109	3.998	4.7354
El Salvador	SLV	2016	4.1435	4.418	4.4466
El Salvador	SLV	2017	4.1803	4.385	4.4180
El Salvador	SLV	2018	4.2010	4.006	4.4679
El Salvador	SLV	2019	4.1763	4.170	4.4679
El Salvador	SLV	2020	4.0768	5.008	4.4679
Serbia	SRB	2006	4.0752	20.850	6.0929
Serbia	SRB	2007	4.1328	18.060	6.0593
Serbia	SRB	2008	4.1761	13.670	5.7222
Serbia	SRB	2009	3.9502	16.116	5.7142
Serbia	SRB	2010	4.1098	19.204	5.6771
Serbia	SRB	2011	4.1229	22.959	6.8850
Serbia	SRB	2012	4.2025	24.000	6.8894
Serbia	SRB	2013	4.2439	22.154	6.8115
Serbia	SRB	2014	4.2790	19.223	6.9829
Serbia	SRB	2015	4.3265	17.660	6.8757
Serbia	SRB	2016	4.3920	15.257	6.8942
Serbia	SRB	2017	4.4391	13.477	6.8768
Serbia	SRB	2018	4.4480	12.733	6.9250
Serbia	SRB	2019	4.4551	10.395	6.9250
Serbia	SRB	2020	4.4048	9.011	6.9250
Suriname	SUR	2010	4.3616	7.150	7.8526
Suriname	SUR	2011	4.5307	7.540	7.7693
Suriname	SUR	2012	4.5450	8.100	7.7586
Suriname	SUR	2013	4.4909	6.600	7.8247
Suriname	SUR	2014	4.3585	6.940	6.1688
Suriname	SUR	2015	4.2737	7.220	5.9845
Suriname	SUR	2016	4.3959	7.917	6.1678
Suriname	SUR	2017	4.5120	7.888	8.9767
Suriname	SUR	2018	4.5300	7.693	5.4289
Suriname	SUR	2019	4.5671	7.556	5.4289
Suriname	SUR	2020	4.8517	8.760	7.0774
Slovak Republic	SVK	2000	4.4329	18.546	5.2455
Slovak Republic	SVK	2001	4.4889	19.148	5.3597
Slovak Republic	SVK	2002	4.4759	18.541	6.4714
Slovak Republic	SVK	2003	4.5556	17.549	7.0825
Slovak Republic	SVK	2004	4.6120	18.206	7.3515

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Table D.1 continued from previous page

Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Slovak Republic	SVK	2005	4.6638	16.276	7.5339
Slovak Republic	SVK	2006	4.8127	13.395	8.0148
Slovak Republic	SVK	2007	4.9273	11.160	7.7651
Slovak Republic	SVK	2008	4.9700	9.514	7.6512
Slovak Republic	SVK	2009	4.8313	12.023	7.4361
Slovak Republic	SVK	2010	4.9802	14.387	7.1531
Slovak Republic	SVK	2011	5.0776	13.634	7.6084
Slovak Republic	SVK	2012	5.1178	13.966	7.1516
Slovak Republic	SVK	2013	5.1304	14.226	6.9334
Slovak Republic	SVK	2014	5.1056	11.536	7.4065
Slovak Republic	SVK	2015	5.1116	11.492	7.0431
Slovak Republic	SVK	2016	5.1237	9.679	6.9797
Slovak Republic	SVK	2017	5.1472	8.142	6.9169
Slovak Republic	SVK	2018	5.1635	6.544	6.9497
Slovak Republic	SVK	2019	5.1334	5.761	6.9497
Slovak Republic	SVK	2020	5.0674	6.719	6.9497
Slovenia	SVN	2000	4.5416	6.920	4.2294
Slovenia	SVN	2001	4.5432	5.682	4.3347
Slovenia	SVN	2002	4.5196	5.922	4.2875
Slovenia	SVN	2003	4.5068	6.479	5.4820
Slovenia	SVN	2004	4.6041	6.012	5.6721
Slovenia	SVN	2005	4.7015	6.506	5.5596
Slovenia	SVN	2006	4.7930	5.950	5.3106
Slovenia	SVN	2007	4.8581	4.818	5.3179
Slovenia	SVN	2008	4.8536	4.371	5.4332
Slovenia	SVN	2009	4.6579	5.858	5.9726
Slovenia	SVN	2010	4.8208	7.236	5.5522
Slovenia	SVN	2011	4.9210	8.166	5.5957
Slovenia	SVN	2012	4.9349	8.841	5.6575
Slovenia	SVN	2013	4.9473	10.103	5.9439
Slovenia	SVN	2014	4.9498	9.668	6.2496
Slovenia	SVN	2015	4.9737	8.962	6.0121
Slovenia	SVN	2016	4.9647	8.000	6.0820
Slovenia	SVN	2017	5.0419	6.564	6.1208
Slovenia	SVN	2018	5.0817	5.108	6.1959
Slovenia	SVN	2019	5.1059	4.446	6.1959
Slovenia	SVN	2020	5.0942	4.971	6.1959
Sweden	SWE	2000	4.1086	5.466	4.0788
Sweden	SWE	2001	4.0475	4.730	4.0960
Sweden	SWE	2002	4.0168	4.965	5.1038
Sweden	SWE	2003	4.0176	5.555	4.9927
Sweden	SWE	2004	4.0634	6.693	5.1795
Sweden	SWE	2005	4.1264	7.810	5.0617
Sweden	SWE	2006	4.1769	7.066	5.1770
Sweden	SWE	2007	4.1853	6.161	5.0729
Sweden	SWE	2008	4.2249	6.235	5.1322
Sweden	SWE	2009	4.0555	8.351	5.3673
Sweden	SWE	2010	4.1336	8.610	6.4315
Sweden	SWE	2011	4.1557	7.804	6.6623
Sweden	SWE	2012	4.1152	7.976	6.8000
Sweden	SWE	2013	4.0285	8.052	6.8523
Sweden	SWE	2014	4.0356	7.954	6.6950
Sweden	SWE	2015	4.0163	7.432	6.7499
Sweden	SWE	2016	3.9984	6.990	6.8663
Sweden	SWE	2017	4.0482	6.718	6.9324
Sweden	SWE	2018	4.1117	6.365	6.0457
Sweden	SWE	2019	4.0951	6.833	6.0457
Sweden	SWE	2020	4.0260	8.291	6.0457
Eswatini	SWZ	2010	4.4392	26.736	7.7296
Eswatini	SWZ	2011	4.3830	25.987	7.8173
Eswatini	SWZ	2012	4.3468	25.128	7.8666
Eswatini	SWZ	2013	4.3866	24.448	7.7140
Eswatini	SWZ	2014	4.4565	23.828	7.7140
Eswatini	SWZ	2015	4.4124	23.285	7.7140
Eswatini	SWZ	2016	4.4246	22.718	7.7709
Eswatini	SWZ	2017	4.3368	24.523	7.7494
Eswatini	SWZ	2018	4.3778	26.369	7.6307
Eswatini	SWZ	2019	4.4193	28.138	7.6307
Eswatini	SWZ	2020	4.4002	32.944	7.6307
Syrian Arab Republic	SYR	2000	3.7981	9.587	5.3709
Syrian Arab Republic	SYR	2001	3.9002	11.630	5.3709
Syrian Arab Republic	SYR	2002	3.9766	10.940	5.3709
Syrian Arab Republic	SYR	2003	3.9054	10.280	5.3709
Syrian Arab Republic	SYR	2004	4.1421	9.513	5.3709
Syrian Arab Republic	SYR	2005	4.2167	8.809	5.6459
Syrian Arab Republic	SYR	2006	4.1955	8.170	5.2268
Syrian Arab Republic	SYR	2007	4.1705	8.420	5.3592
Syrian Arab Republic	SYR	2008	4.1552	10.940	5.3718
Syrian Arab Republic	SYR	2009	3.8836	8.140	6.0780
Syrian Arab Republic	SYR	2010	3.9010	8.610	5.5828
Syrian Arab Republic	SYR	2011	3.8101	8.627	3.6833
Syrian Arab Republic	SYR	2012	3.5895	13.800	4.4200
Syrian Arab Republic	SYR	2013	3.9002	14.500	3.6833
Syrian Arab Republic	SYR	2014	3.9691	14.783	5.6635
Syrian Arab Republic	SYR	2015	3.9593	14.243	5.6635
Syrian Arab Republic	SYR	2016	4.0610	13.795	4.0556
Syrian Arab Republic	SYR	2017	3.9740	13.597	4.0556
Syrian Arab Republic	SYR	2018	3.7952	13.497	3.8722
Syrian Arab Republic	SYR	2019	3.7331	13.360	3.8722
Syrian Arab Republic	SYR	2020	4.2473	15.191	5.8083
Chad	TCD	2000	3.5838	0.790	6.2215

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Chad	TCD	2001	3.9266	0.787	6.2215
Chad	TCD	2002	4.5184	0.769	6.2215
Chad	TCD	2003	3.9262	0.732	5.8327
Chad	TCD	2004	4.2639	0.685	5.7379
Chad	TCD	2005	3.8409	0.678	5.9526
Chad	TCD	2006	3.8800	0.724	5.9832
Chad	TCD	2007	3.9181	0.834	5.8803
Chad	TCD	2008	3.8305	0.906	5.9383
Chad	TCD	2009	3.6628	0.906	6.0262
Chad	TCD	2010	3.7537	0.878	5.9909
Chad	TCD	2011	3.8825	0.905	6.2309
Chad	TCD	2012	3.7490	0.900	5.9065
Chad	TCD	2013	3.6392	0.948	5.9446
Chad	TCD	2014	3.8579	0.933	5.8188
Chad	TCD	2015	3.7395	0.974	5.3612
Chad	TCD	2016	3.5544	1.047	5.3632
Chad	TCD	2017	3.5116	1.116	5.3821
Chad	TCD	2018	3.4105	1.135	5.3732
Chad	TCD	2019	3.4102	1.084	5.3732
Chad	TCD	2020	3.1236	1.707	5.3732
Togo	TGO	2000	3.7820	4.174	4.2656
Togo	TGO	2001	3.7720	4.124	4.2656
Togo	TGO	2002	3.7433	4.104	4.2656
Togo	TGO	2003	3.8276	3.984	4.2656
Togo	TGO	2004	3.8374	4.015	4.2656
Togo	TGO	2005	3.9775	4.157	4.5656
Togo	TGO	2006	3.9443	4.229	4.1406
Togo	TGO	2007	3.9300	3.817	4.1406
Togo	TGO	2008	3.9432	3.283	3.5906
Togo	TGO	2009	3.9334	2.849	4.1885
Togo	TGO	2010	4.0257	2.383	4.3087
Togo	TGO	2011	4.1283	1.982	4.1684
Togo	TGO	2012	4.2230	2.030	4.1684
Togo	TGO	2013	4.2663	2.085	2.7789
Togo	TGO	2014	4.0980	2.142	4.1698
Togo	TGO	2015	4.0631	2.204	4.1684
Togo	TGO	2016	3.9946	2.968	4.1684
Togo	TGO	2017	3.8121	3.744	4.1684
Togo	TGO	2018	3.8170	2.898	2.7789
Togo	TGO	2019	3.8064	2.036	2.7789
Togo	TGO	2020	3.7789	2.225	4.4847
Thailand	THA	2000	4.6401	2.389	4.4168
Thailand	THA	2001	4.6588	2.600	4.6270
Thailand	THA	2002	4.5936	1.820	5.5045
Thailand	THA	2003	4.6302	1.540	5.4768
Thailand	THA	2004	4.7030	1.510	5.5340
Thailand	THA	2005	4.7960	1.350	5.4272
Thailand	THA	2006	4.7585	1.220	5.6002
Thailand	THA	2007	4.7162	1.180	5.5995
Thailand	THA	2008	4.8083	1.180	5.6103
Thailand	THA	2009	4.6207	1.490	5.6967
Thailand	THA	2010	4.7032	0.622	4.9590
Thailand	THA	2011	4.8017	0.660	4.9643
Thailand	THA	2012	4.7899	0.580	4.9065
Thailand	THA	2013	4.7356	0.249	4.6826
Thailand	THA	2014	4.7163	0.576	4.8168
Thailand	THA	2015	4.6435	0.597	4.7007
Thailand	THA	2016	4.5960	0.688	4.7174
Thailand	THA	2017	4.6091	0.830	4.7007
Thailand	THA	2018	4.5941	0.765	4.6900
Thailand	THA	2019	4.4853	0.716	4.6900
Thailand	THA	2020	4.4714	1.099	4.6900
Tajikistan	TJK	2010	4.2235	11.542	5.2357
Tajikistan	TJK	2011	4.2257	11.557	5.2367
Tajikistan	TJK	2012	4.2093	11.444	4.0185
Tajikistan	TJK	2013	4.1413	11.417	4.8737
Tajikistan	TJK	2014	4.0583	11.439	5.4125
Tajikistan	TJK	2015	3.9572	11.485	5.4760
Tajikistan	TJK	2016	4.0290	11.500	5.7470
Tajikistan	TJK	2017	3.9649	11.487	5.7342
Tajikistan	TJK	2018	3.9963	11.437	5.7598
Tajikistan	TJK	2019	3.9980	11.419	5.7598
Tajikistan	TJK	2020	4.0260	12.321	5.7598
Timor-Leste	TLS	2010	3.3914	3.301	7.7090
Timor-Leste	TLS	2011	3.4609	3.384	7.3260
Timor-Leste	TLS	2012	4.0924	3.468	7.3563
Timor-Leste	TLS	2013	4.1221	3.564	6.8569
Timor-Leste	TLS	2014	4.0995	3.618	6.8739
Timor-Leste	TLS	2015	3.6237	3.678	6.6905
Timor-Leste	TLS	2016	3.5428	4.657	6.6905
Timor-Leste	TLS	2017	3.5947	4.248	7.2993
Timor-Leste	TLS	2018	3.5921	3.778	4.2906
Timor-Leste	TLS	2019	3.6015	3.097	4.2906
Timor-Leste	TLS	2020	3.7162	2.782	6.4712
Trinidad and Tobago	TTO	2000	4.5324	12.100	7.1528
Trinidad and Tobago	TTO	2001	4.4880	10.880	6.7347
Trinidad and Tobago	TTO	2002	4.4250	10.390	7.1111
Trinidad and Tobago	TTO	2003	4.3849	10.480	6.9444
Trinidad and Tobago	TTO	2004	4.4503	8.330	7.5314
Trinidad and Tobago	TTO	2005	4.5833	7.950	7.5443
Trinidad and Tobago	TTO	2006	4.7217	6.270	7.5316

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Trinidad and Tobago	TTO	2007	4.5779	5.540	7.4648
Trinidad and Tobago	TTO	2008	4.6183	4.630	7.4785
Trinidad and Tobago	TTO	2009	4.4293	5.280	7.5131
Trinidad and Tobago	TTO	2010	4.3670	4.033	7.5044
Trinidad and Tobago	TTO	2011	4.5660	3.425	7.5029
Trinidad and Tobago	TTO	2012	4.3971	3.718	7.6659
Trinidad and Tobago	TTO	2013	4.6991	2.683	7.6336
Trinidad and Tobago	TTO	2014	4.4712	2.477	7.7021
Trinidad and Tobago	TTO	2015	4.3100	2.428	7.6216
Trinidad and Tobago	TTO	2016	4.1956	3.207	7.5811
Trinidad and Tobago	TTO	2017	4.1829	3.394	7.5532
Trinidad and Tobago	TTO	2018	4.3360	3.498	7.4675
Trinidad and Tobago	TTO	2019	4.0490	3.523	7.4675
Trinidad and Tobago	TTO	2020	3.9024	4.206	7.4675
Tunisia	TUN	2000	4.2068	14.940	5.9984
Tunisia	TUN	2001	4.2937	14.400	5.9389
Tunisia	TUN	2002	4.2608	14.550	5.9984
Tunisia	TUN	2003	4.2338	14.510	6.0540
Tunisia	TUN	2004	4.2789	14.230	6.1892
Tunisia	TUN	2005	4.2952	12.872	6.5216
Tunisia	TUN	2006	4.3525	12.510	6.4921
Tunisia	TUN	2007	4.4779	12.365	6.2708
Tunisia	TUN	2008	4.5849	12.444	6.1720
Tunisia	TUN	2009	4.3462	13.290	6.6402
Tunisia	TUN	2010	4.4264	13.049	6.5483
Tunisia	TUN	2011	4.4643	18.334	4.8481
Tunisia	TUN	2012	4.4736	17.630	6.3797
Tunisia	TUN	2013	4.4413	15.934	6.0593
Tunisia	TUN	2014	4.4154	14.259	6.3717
Tunisia	TUN	2015	4.3163	15.159	5.3767
Tunisia	TUN	2016	4.3104	15.557	5.3161
Tunisia	TUN	2017	4.4149	15.330	5.3636
Tunisia	TUN	2018	4.4950	15.459	5.5720
Tunisia	TUN	2019	4.4670	17.153	5.5720
Tunisia	TUN	2020	4.3266	17.656	5.5720
Türkiye	TUR	2000	3.4011	6.495	3.9401
Türkiye	TUR	2001	3.5849	8.381	3.8382
Türkiye	TUR	2002	3.5964	10.358	4.2710
Türkiye	TUR	2003	3.6126	10.542	4.3544
Türkiye	TUR	2004	3.6714	10.838	3.9344
Türkiye	TUR	2005	3.6264	10.636	3.8336
Türkiye	TUR	2006	3.6991	10.227	3.8467
Türkiye	TUR	2007	3.7064	10.285	4.2426
Türkiye	TUR	2008	3.7693	10.965	4.3820
Türkiye	TUR	2009	3.6226	14.026	4.7780
Türkiye	TUR	2010	3.6516	11.879	4.8565
Türkiye	TUR	2011	3.8021	9.789	4.9782
Türkiye	TUR	2012	3.7882	9.210	4.9549
Türkiye	TUR	2013	3.7863	9.713	4.8593
Türkiye	TUR	2014	3.7951	9.901	4.9315
Türkiye	TUR	2015	3.7420	10.304	4.5050
Türkiye	TUR	2016	3.6991	10.899	4.6939
Türkiye	TUR	2017	3.8489	10.919	4.7134
Türkiye	TUR	2018	3.9592	10.956	5.4071
Türkiye	TUR	2019	3.9397	13.730	5.4071
Türkiye	TUR	2020	3.9894	13.148	5.4071
Tanzania	TZA	2000	2.8265	3.127	5.7608
Tanzania	TZA	2001	2.9389	2.994	5.7608
Tanzania	TZA	2002	2.9277	3.024	5.7608
Tanzania	TZA	2003	3.0894	3.055	6.0108
Tanzania	TZA	2004	3.2277	3.108	5.7608
Tanzania	TZA	2005	3.2957	3.194	5.7585
Tanzania	TZA	2006	3.4910	3.299	5.7870
Tanzania	TZA	2007	3.5322	3.023	5.2805
Tanzania	TZA	2008	3.6566	2.774	5.2041
Tanzania	TZA	2009	3.4641	2.500	5.8023
Tanzania	TZA	2010	3.6177	3.029	5.7073
Tanzania	TZA	2011	3.8027	3.470	6.3949
Tanzania	TZA	2012	3.7236	3.222	6.4780
Tanzania	TZA	2013	3.5966	2.930	6.4102
Tanzania	TZA	2014	3.5041	2.125	6.3388
Tanzania	TZA	2015	3.4950	2.159	6.6275
Tanzania	TZA	2016	3.3223	2.230	6.5130
Tanzania	TZA	2017	3.1484	2.303	6.5125
Tanzania	TZA	2018	3.1393	2.393	6.6017
Tanzania	TZA	2019	3.1650	2.496	6.6017
Tanzania	TZA	2020	3.0886	2.781	6.6017
Uganda	UGA	2000	3.4439	3.529	8.6047
Uganda	UGA	2001	3.5558	3.520	8.6047
Uganda	UGA	2002	3.2028	3.500	8.6047
Uganda	UGA	2003	3.3626	3.600	7.4936
Uganda	UGA	2004	3.4004	2.705	7.5407
Uganda	UGA	2005	3.4350	1.900	8.7265
Uganda	UGA	2006	3.5630	2.272	9.0471
Uganda	UGA	2007	3.7033	2.677	9.0512
Uganda	UGA	2008	3.7677	3.052	9.0874
Uganda	UGA	2009	3.1416	3.600	9.2384
Uganda	UGA	2010	3.1593	3.619	8.8794
Uganda	UGA	2011	3.3304	3.528	8.9465
Uganda	UGA	2012	3.4264	3.551	8.9138
Uganda	UGA	2013	3.3481	1.910	8.8563

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Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Uganda	UGA	2014	3.2411	2.348	8.9549
Uganda	UGA	2015	3.1809	2.679	8.5822
Uganda	UGA	2016	3.2202	3.008	8.6127
Uganda	UGA	2017	3.3192	3.428	8.6576
Uganda	UGA	2018	3.3949	3.250	8.6297
Uganda	UGA	2019	3.4610	3.060	8.6297
Uganda	UGA	2020	3.4959	3.831	8.6297
Ukraine	UKR	2000	4.4787	11.707	5.2207
Ukraine	UKR	2001	4.4007	11.061	4.8586
Ukraine	UKR	2002	4.3754	10.136	6.1658
Ukraine	UKR	2003	4.4843	9.057	6.3047
Ukraine	UKR	2004	4.5189	8.590	6.0790
Ukraine	UKR	2005	4.3675	7.180	6.1727
Ukraine	UKR	2006	4.3114	6.810	6.2149
Ukraine	UKR	2007	4.3027	6.351	6.2262
Ukraine	UKR	2008	4.3952	6.363	6.3006
Ukraine	UKR	2009	4.2506	8.840	6.0702
Ukraine	UKR	2010	4.3769	8.100	6.0251
Ukraine	UKR	2011	4.4909	7.851	6.0883
Ukraine	UKR	2012	4.4295	7.529	5.8422
Ukraine	UKR	2013	4.3052	7.170	5.3718
Ukraine	UKR	2014	4.3962	9.270	5.6888
Ukraine	UKR	2015	4.4200	9.140	5.3814
Ukraine	UKR	2016	4.3944	9.350	5.0898
Ukraine	UKR	2017	4.4171	9.500	5.1280
Ukraine	UKR	2018	4.3802	8.799	5.3545
Ukraine	UKR	2019	4.2772	8.194	5.3545
Ukraine	UKR	2020	4.1912	9.475	5.3545
Uruguay	URY	2000	3.2285	12.627	6.4505
Uruguay	URY	2001	3.1988	15.052	6.2138
Uruguay	URY	2002	3.3362	16.648	7.0544
Uruguay	URY	2003	3.5972	16.661	7.0544
Uruguay	URY	2004	3.7880	12.980	7.1572
Uruguay	URY	2005	3.7388	12.009	6.4309
Uruguay	URY	2006	3.7966	10.844	6.3894
Uruguay	URY	2007	3.7527	9.403	6.2536
Uruguay	URY	2008	3.8761	8.025	6.1850
Uruguay	URY	2009	3.6281	7.740	6.5869
Uruguay	URY	2010	3.5995	7.158	5.7832
Uruguay	URY	2011	3.6115	6.307	5.6993
Uruguay	URY	2012	3.6255	6.451	5.7558
Uruguay	URY	2013	3.5193	6.444	5.6112
Uruguay	URY	2014	3.5123	6.547	5.5771
Uruguay	URY	2015	3.3938	7.488	5.6313
Uruguay	URY	2016	3.2737	7.841	6.2147
Uruguay	URY	2017	3.2247	7.890	6.1281
Uruguay	URY	2018	3.2222	8.336	5.9387
Uruguay	URY	2019	3.2424	8.836	5.9387
Uruguay	URY	2020	3.2936	10.413	5.9387
United States	USA	2000	2.9913	3.992	7.6389
United States	USA	2001	2.8922	4.731	7.7669
United States	USA	2002	2.8521	5.783	9.2778
United States	USA	2003	2.8736	5.989	9.1944
United States	USA	2004	2.9527	5.529	9.2616
United States	USA	2005	3.0056	5.084	9.1403
United States	USA	2006	3.0592	4.623	9.1584
United States	USA	2007	3.0861	4.622	9.2421
United States	USA	2008	3.1530	5.784	9.1986
United States	USA	2009	2.9114	9.254	9.1006
United States	USA	2010	3.0718	9.633	9.0558
United States	USA	2011	3.1793	8.949	9.0100
United States	USA	2012	3.1732	8.069	9.0087
United States	USA	2013	3.1422	7.375	9.0261
United States	USA	2014	3.1313	6.168	9.1986
United States	USA	2015	3.0382	5.280	9.1362
United States	USA	2016	2.9797	4.869	9.1375
United States	USA	2017	3.0039	4.355	9.1571
United States	USA	2018	3.0307	3.896	8.9775
United States	USA	2019	2.9729	3.669	8.9775
United States	USA	2020	2.8873	8.055	8.9775
Venezuela, RB	VEN	2000	3.7486	13.990	3.3550
Venezuela, RB	VEN	2001	3.6001	13.040	3.1519
Venezuela, RB	VEN	2002	3.7562	16.170	2.8067
Venezuela, RB	VEN	2003	3.7758	16.780	3.1400
Venezuela, RB	VEN	2004	3.9142	15.070	3.2141
Venezuela, RB	VEN	2005	4.0037	10.663	3.0570
Venezuela, RB	VEN	2006	3.9902	8.606	2.9320
Venezuela, RB	VEN	2007	3.9198	7.279	2.9937
Venezuela, RB	VEN	2008	3.8296	6.245	3.1374
Venezuela, RB	VEN	2009	3.4033	6.097	4.5164
Venezuela, RB	VEN	2010	3.2824	7.112	3.6072
Venezuela, RB	VEN	2011	3.7953	6.902	3.5082
Venezuela, RB	VEN	2012	3.6634	6.601	3.3456
Venezuela, RB	VEN	2013	3.6128	7.540	2.2898
Venezuela, RB	VEN	2014	3.1962	6.821	2.5241
Viet Nam	VNM	2002	4.6440	2.120	5.4115
Viet Nam	VNM	2003	4.7432	2.250	4.7335
Viet Nam	VNM	2004	4.8573	2.140	4.9873
Viet Nam	VNM	2005	4.7881	2.078	5.3800
Viet Nam	VNM	2006	4.8507	2.046	5.3172
Viet Nam	VNM	2007	4.9677	2.026	5.1613

Continued on next page

Table D.1 continued from previous page

Country	Code	Year	Merchandise trade (log, % GDP)	Unemployment (%)	Labor market reg. (5B)
Viet Nam	VNM	2008	4.9744	1.889	5.3548
Viet Nam	VNM	2009	4.7861	1.737	5.7110
Viet Nam	VNM	2010	4.6701	1.114	5.4959
Viet Nam	VNM	2011	4.7707	0.999	5.6387
Viet Nam	VNM	2012	4.7598	1.027	5.5249
Viet Nam	VNM	2013	4.8168	1.316	5.3405
Viet Nam	VNM	2014	4.8495	1.256	5.4806
Viet Nam	VNM	2015	4.9196	1.848	5.3078
Viet Nam	VNM	2016	4.9176	1.848	5.2543
Viet Nam	VNM	2017	5.0245	1.874	5.2598
Viet Nam	VNM	2018	5.0432	1.161	5.3793
Viet Nam	VNM	2019	5.0423	1.681	5.3793
Viet Nam	VNM	2020	5.0583	2.103	5.3793
Yemen, Rep.	YEM	2010	3.9273	12.779	5.5029
Yemen, Rep.	YEM	2011	3.9491	13.311	5.4043
Yemen, Rep.	YEM	2012	3.9465	13.473	7.0474
Yemen, Rep.	YEM	2013	3.9216	13.673	7.0367
Yemen, Rep.	YEM	2014	3.5100	13.467	4.9038
Yemen, Rep.	YEM	2015	2.8147	17.900	6.5815
Yemen, Rep.	YEM	2016	2.3576	18.416	6.5228
Yemen, Rep.	YEM	2017	2.5015	18.603	6.1188
Yemen, Rep.	YEM	2018	2.8167	17.584	6.6310
Yemen, Rep.	YEM	2019	3.1847	17.202	6.6310
Yemen, Rep.	YEM	2020	3.2141	17.953	6.6310
South Africa	ZAF	2000	3.6719	22.714	5.8550
South Africa	ZAF	2001	3.7486	22.605	5.8327
South Africa	ZAF	2002	3.8220	22.547	5.9847
South Africa	ZAF	2003	3.6556	22.629	6.0403
South Africa	ZAF	2004	3.6620	22.538	6.0535
South Africa	ZAF	2005	3.6748	22.461	6.0629
South Africa	ZAF	2006	3.8078	22.324	6.0620
South Africa	ZAF	2007	3.8609	22.287	6.0978
South Africa	ZAF	2008	4.0553	22.407	6.0883
South Africa	ZAF	2009	3.7175	23.523	6.1082
South Africa	ZAF	2010	3.8086	24.683	6.0929
South Africa	ZAF	2011	3.9300	24.639	5.9514
South Africa	ZAF	2012	3.9551	24.727	5.8498
South Africa	ZAF	2013	4.0163	24.561	6.0713
South Africa	ZAF	2014	4.0325	24.890	6.3658
South Africa	ZAF	2015	3.9806	25.149	6.1698
South Africa	ZAF	2016	3.9491	26.536	6.5151
South Africa	ZAF	2017	3.9110	27.035	6.6059
South Africa	ZAF	2018	3.9379	26.906	6.5121
South Africa	ZAF	2019	3.9268	28.468	6.5121
South Africa	ZAF	2020	3.9174	29.217	6.5121
Zambia	ZMB	2000	3.9007	12.930	6.1722
Zambia	ZMB	2001	3.9226	13.415	6.1722
Zambia	ZMB	2002	3.8933	14.131	6.1722
Zambia	ZMB	2003	3.9532	14.705	6.5333
Zambia	ZMB	2004	4.0931	15.330	6.5333
Zambia	ZMB	2005	3.9594	15.900	6.9231
Zambia	ZMB	2006	3.9825	13.229	6.4065
Zambia	ZMB	2007	4.1166	10.561	6.2973
Zambia	ZMB	2008	4.0381	7.930	6.2965
Zambia	ZMB	2009	3.9727	10.582	6.4726
Zambia	ZMB	2010	4.1237	13.190	6.3394
Zambia	ZMB	2011	4.2336	10.545	6.3621
Zambia	ZMB	2012	4.2661	7.850	6.3923
Zambia	ZMB	2013	4.3253	7.264	6.2341
Zambia	ZMB	2014	4.2694	6.571	6.1409
Zambia	ZMB	2015	4.2258	5.942	5.6532
Zambia	ZMB	2016	4.1772	5.239	5.5452
Zambia	ZMB	2017	4.1238	4.529	5.7159
Zambia	ZMB	2018	4.2529	5.033	5.6035
Zambia	ZMB	2019	4.1104	5.542	5.6035
Zambia	ZMB	2020	4.2881	6.033	5.6035
Zimbabwe	ZWE	2000	4.0364	5.684	4.0649
Zimbabwe	ZWE	2001	3.7638	5.318	3.9817
Zimbabwe	ZWE	2002	4.0832	5.007	5.0556
Zimbabwe	ZWE	2003	4.0778	4.735	4.9444
Zimbabwe	ZWE	2004	4.2551	4.390	4.9933
Zimbabwe	ZWE	2005	4.2892	4.622	5.0528
Zimbabwe	ZWE	2006	4.3282	4.759	5.2276
Zimbabwe	ZWE	2007	4.6587	4.991	5.2193
Zimbabwe	ZWE	2008	4.5359	5.357	5.3081
Zimbabwe	ZWE	2009	4.4145	5.453	5.1667
Zimbabwe	ZWE	2010	4.2611	5.447	5.0535
Zimbabwe	ZWE	2011	4.4009	5.368	4.2905
Zimbabwe	ZWE	2012	4.1467	5.061	4.6088
Zimbabwe	ZWE	2013	4.0650	4.943	4.5545
Zimbabwe	ZWE	2014	3.9311	4.774	5.0859
Zimbabwe	ZWE	2015	3.8414	5.377	6.0484
Zimbabwe	ZWE	2016	3.7424	5.886	6.1234
Zimbabwe	ZWE	2017	2.8172	6.344	6.1243
Zimbabwe	ZWE	2018	3.4206	6.793	6.2400
Zimbabwe	ZWE	2019	3.5648	7.373	6.2400
Zimbabwe	ZWE	2020	3.6206	8.621	6.2400

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