

# Structural pressures and political instability

## Trajectories for sub-Saharan Africa

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Sub-Saharan Africa faces many structural pressures that increase the risk of political instability and violent conflict. Understanding the nature and trajectories of structural pressures is key for conflict prevention, development and peacebuilding. Using five models of instability and the International Futures system, this report finds that the risk from demographics and poor development has eased and will reduce further. Anocratic regimes pose the greatest challenge to stability, and horizontal inequalities are likely to continue to fuel grievances.

## Key findings

- ▶ Structural pressures refer to broad development contexts in which events may happen. They tend to change slowly, but don't necessarily change uniformly. They are not immediate drivers or predictors of political instability, but they show why some countries may be more likely to experience political instability.
- ▶ Countries in sub-Saharan Africa face various structural pressures that increase the risk of political instability and violent conflict.
- ▶ Structural pressures stem from demographics, low levels of development, regime type and horizontal inequalities.
- ▶ Uneven progress across key development transitions can also increase risk.
- ▶ States are vulnerable for multiple reasons, and there is no unified set of drivers of instability.
- ▶ Sub-Saharan Africa's tendency for political instability has declined.
- ▶ The region's age structure does not promote stability, but demographic risk has been reducing steadily and will decrease further to 2040.
- ▶ Risk from low levels of development has also eased and is projected to reduce more with better socio-economic performance.
- ▶ Horizontal inequalities and state-led discrimination between groups are likely to continue to fuel grievances and instability.
- ▶ The greatest challenge to future stability are regimes that combine autocratic and democratic features. Democracies with high levels of poverty appear to be particularly vulnerable too.
- ▶ Understanding structural pressures over long time horizons can provide a more nuanced understanding of risk. This can inform conflict prevention, development and peacebuilding efforts.

## Recommendations

- ▶ Policy makers need to invest more to identify entry points for mitigating political instability and capitalise on opportunities for stability, development and peace.
- ▶ A dynamic understanding of risk should be adopted, as there are multiple paths to instability.
- ▶ Policy makers should become more familiar with the distribution and evolution of structural pressures.
- ▶ Insights generated from several models and integrated forecasting tools should be used, including for regional and country strategies and programming.
- ▶ Structural analysis should be paired with agent-based analysis to better understand how structures and agents interact.
- ▶ Governments and their partners should support efforts to generate better data, including on a subnational level.
- ▶ The United Nations needs to maintain the renewed momentum for the multilateral conflict prevention agenda.
- ▶ Decision making by governments and their partners should expand inclusion across identity groups to achieve better international peacebuilding partnerships.
- ▶ Demographics should be recognised as central to political stability. Policy makers need to better manage population dynamics and intensify efforts to improve socio-economic development.
- ▶ The role of uneven progress across key development transitions needs to be taken into account.

## Introduction

Sub-Saharan Africa faces multiple structural pressures that increase the risk of political instability and violent conflict in the region. These pressures stem from demographics, low levels of development, regime type, and horizontal inequalities or cross-group discrimination. Uneven progress across key development transitions can also increase risk.

This report uses five distinct models of political instability and the International Futures (IFs) system (see Box 1) to explore how these pressures may evolve up to 2040.<sup>1</sup>

The objective is to illustrate the value of a multi-dimensional and dynamic understanding of risk, and to show how modelling and forecasting can be used to support development planning, conflict prevention and peacebuilding.<sup>2</sup>

The onset of political instability is often the result of a complex interplay between structural drivers, political agency, power dynamics and external events (see Annex 1 on structure and agency). Structural pressures tend to change slowly across time. They are not immediate drivers of political instability, and they cannot be used to predict exactly when, where and how it will manifest.<sup>3</sup>

Structural pressures refer to broad development contexts in which events may happen and in which individuals and groups make decisions and take action.

Structural pressures refer to broad development contexts in which events may happen

Understanding the nature and the future distribution of structural pressures is key to identifying risks and formulating strategies and policies that prevent conflict<sup>4</sup> and sustain peace.<sup>5</sup> It can help political agents and coalitions drive change and make systems more resilient. It is also useful for assessing the longer-term prospects of peace processes and peace agreements.<sup>6</sup>

The report focuses on *internal* structural drivers of political instability. The role of external drivers, such as the so-called neighbourhood effect, or indirect drivers, such as climate change, is beyond the scope of this analysis.<sup>7</sup> Moreover, this approach does not include

measures of political organised violence as drivers of future political instability.<sup>8</sup>

The broad measure of political instability used in this report refers to events brought about by adverse regime changes, civil wars (revolutionary or ethnic wars), genocides and politicides<sup>9</sup> as measured by the Political Instability Task Force (PITF).<sup>10,11</sup>

## Optimism and uncertainty

The report yields both optimism and uncertainty. Sub-Saharan Africa's tendency towards political instability has declined. But the region's overall age structure does not promote stability. Nevertheless, demographic risk has been reducing steadily and will decrease further to 2040.

Risk from low levels of development, a proxy for low state capacity and legitimacy, has also eased and is projected to reduce more as the region improves its socio-economic performance.

Inequalities and state-led discrimination across groups are likely to continue to fuel grievances and instability. This is connected to the greatest challenge to future stability across sub-Saharan Africa – regimes that are neither autocratic nor democratic, but somewhere in between.

At the same time, democracies characterised by widespread poverty appear to be particularly vulnerable to political instability.

These findings support the notion that sub-Saharan Africa has become more stable compared to the particularly violent period around the end of the Cold War. Large-scale organised violence or civil war, typically fought for state control, has declined, and so have fatalities. Organised political violence on a smaller scale has however increased and persists across the region.<sup>12</sup>

This analysis captures broad trends in the increase or decrease in vulnerability to political instability across multiple dimensions and across time in sub-Saharan Africa.

## Structure of the report

This report begins with a discussion of the five models of political instability. It then explores the structural pressures associated with those models for sub-Saharan Africa with references to Southern, West, Central and East Africa/the Horn (see Figure 1) and country-specific examples for Nigeria, Ethiopia and Kenya.

Nigeria and Ethiopia are sub-Saharan Africa's two most populous countries, and Kenya has the region's sixth largest population.<sup>13</sup> Organised political violence affects all three countries, and their stability has a significant impact on their sub-regions and sub-Saharan Africa as a whole.

The report builds on modelling work from the Frederick S Pardee Center for International Futures at the University of Denver as well as on previous work on conflict trends by the African Futures and Innovation programme at the Institute for Security Studies (ISS).<sup>14</sup>

It complements the ISS's Africa Report Violence in Africa: trends, drivers and prospects to 2023.<sup>15</sup>

## Methodology

The analysis in this report relies on five probabilistic models to assess political instability risk.<sup>16</sup> These models are built along the dimensions of demography, development, governance (regime type), structural imbalances, and horizontal inequalities or state-led discrimination across groups (see Figure 2).<sup>17</sup> The pressure from these distinct models is correlated with political instability events and can increase or shrink across time.

Using five different models shows that states are vulnerable for a variety of reasons and that there is no unified set of drivers of political instability. Instead, there are multiple paths to instability.

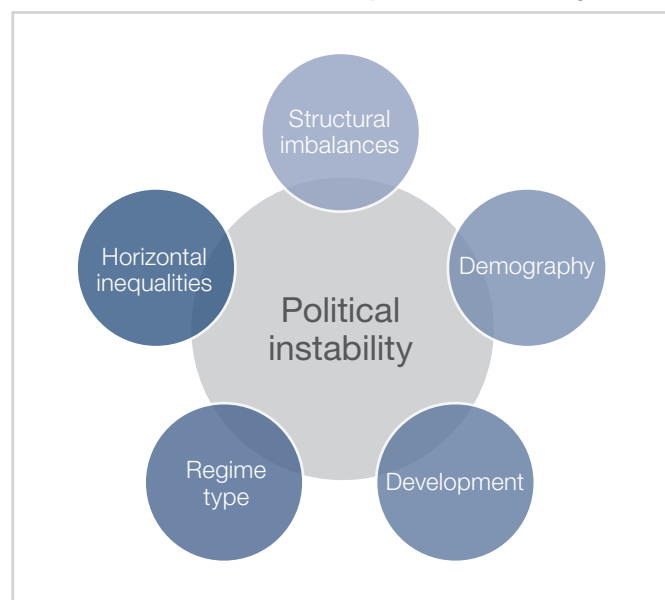
**Figure 1: Sub-Saharan Africa and its regions**



For example, entirely different factors drive the current civil war in South Sudan, election-related violence in Kenya, the ongoing farmer-herder conflict in Nigeria's Middle Belt, and armed conflict in the eastern Democratic Republic of the Congo (DRC).

The drivers are multi-dimensional, distinct and do not necessarily accumulate.<sup>18</sup> States can be vulnerable in a single dimension at a certain point in time, across several dimensions at the same time or, in extreme cases, simultaneously on all fronts, as in Somalia, for example.<sup>19</sup> Vulnerability can also vary starkly across the country, as has been the case in Nigeria and Ethiopia.

**Figure 2: Five dimensions of structural pressure that increase the risk of political instability**



Source: Authors.

The drivers interact in complex ways, are highly context-specific and evolve over time, but they do not change uniformly, simultaneously or equally.<sup>20</sup> This is why this report does not put forward aggregate scores of vulnerability or fragility.

The results presented across multiple models in this report should not be seen as attempts to predict future instability. Instead, they should be used by analysts to inform qualitative assessments of states' structural vulnerability to instability and how it is likely to change.

The four distinct sets of drivers associated with demographics, development, regime type and structural imbalances are forecast within the International Futures

system (IFs), a long-term integrated modelling system developed and housed at the Frederick S Pardee Center for International Futures at the University of Denver. Due to the huge challenges around systematically measuring horizontal inequalities, the drivers of this model cannot be forecast.

### Box 1: International Futures<sup>21</sup>

International Futures (IFs) is a long-term integrated modelling system that uses historical data (over 4 000 series) to identify trends and forecast hundreds of variables for 186 countries from 2015 to 2100. There are three main avenues for analysis in IFs: historical data analysis (how systems have developed thus far), Current Path analysis (where systems seem to be heading given current policies and environmental conditions), and alternative scenario development (exploring if-then statements about the future). IFs provides forward-looking, policy-relevant analysis that frames uncertainty around the future of countries (or groups of countries) and across development systems. It also helps users to think systematically about potential futures, as well as development goals and targets. All forecasts presented in this report are IFs Current Path forecasts. The Current Path is a collection of historical data and trends that represent a likely scenario of how the future will unfold. It is a dynamically unfolding forecast across a range of systems and is not a linear extrapolation.<sup>22</sup>

### Five models of political instability

The five models (see Table 1) of political instability that the Frederick S Pardee Center for International Futures created are grounded in different conceptual foundations.<sup>23</sup> Variables that are conceptually oriented to distinct explanations of the onset of political instability are modelled against historical political instability events as measured by the PITF.<sup>24</sup>

They show how likely it is that a state will experience instability based on historical instability in countries with similar structural pressures.<sup>25</sup> The onset of political instability is the dependent variable.



**Table 1: Structural drivers of instability – five models**

<b>Demographic</b>	Infant mortality rate
	Population size
	Population growth rate
	Size of youth bulge as percentage of adult population over 15 years
	Net migration
<b>Development</b>	Level of gross domestic product (GDP) per capita at purchasing power parity (PPP)
	GDP per capita growth rate
	Life expectancy
<b>Governance (regime type)</b>	Regime type
<b>Structural imbalances</b>	Regime type versus GDP per capita (PPP)
	Life expectancy versus GDP per capita (PPP)
	Youth bulge versus regime type
<b>Horizontal inequalities</b>	State-led discrimination
	Population size
	Religious heterogeneity

Source: IFs, v. 7.34

The values reported below measure the probability or risk in any given year that the pressures associated with specific drivers will lead to the onset of political instability.

### Demographic pressure

The drivers of the demographic model are population size, population growth rate, infant mortality rate,<sup>26</sup> youth bulge and net migration.

Larger populations are correlated with political instability (and state repression)<sup>27</sup> because they ‘both require more intense state action to suppress dissent and offer more opportunities for opposition groups to recruit and mobilize supporters’.<sup>28</sup> Larger populations also provide more opportunities for clashes between different regional or ethnic groups.<sup>29</sup> Nigeria is a case in point.

Rapidly growing populations are also associated with higher risk for political instability as they can increase competition over land and other scarce resources.<sup>30</sup> This may be exacerbated by high levels of net migration. Resource scarcity is often confined to specific areas, and evidence from recent studies finds that the distribution of resources seems to explain the distribution of political violence.<sup>31</sup>

High infant mortality is robustly associated with a higher risk of political instability<sup>32</sup> as it reflects governments that lack capacity and legitimacy to provide basic services.<sup>33</sup>

The demographic model reflects that large youth bulges with more than 40% of the adult population<sup>34</sup> between 15 and 29 years are associated with a higher risk of political instability,<sup>35</sup> especially lower-intensity violent conflict.<sup>36</sup>

This risk is compounded ‘when opportunities for young people are severely restricted in the forms of low access to participation in governance, limited education, and failing economic development’.<sup>37</sup>

Countries with large youth bulges are at higher risk of political instability, especially lower-intensity violent conflict

This is the reality to varying degrees in most countries in sub-Saharan Africa. These circumstances are fertile ground for political mobilisation, in particular of young adult males,<sup>38</sup> by both state and non-state actors who appeal to their identity and ideology to advance their political and military goals.<sup>39</sup> Examples include

recruitment of young people by al-Shabaab in Somalia or Boko Haram in Nigeria.<sup>40</sup>

High levels of net migration can also drive changes in a country's age-sex distribution. In places with a higher propensity for tensions between native and migrant populations, a migrant age-sex distribution skewed heavily towards young males can exacerbate the potential for social risks.<sup>41</sup>

According to Richard Cincotta and Elizabeth Leahy, since 1970 80% of each decade's newly emerged intrastate conflicts have occurred in states with a youthful population.<sup>42</sup> Countries with a median age below 26.3 years have a higher annual probability of 'democratic backsliding',<sup>43</sup> understood as the 'state-led debilitation or elimination of the political institutions sustaining an existing democracy'.<sup>44</sup> Such processes often involve political instability. Countries tend to become more stable at the break-even point of 26.3 years.<sup>45</sup>

States are obviously not demographically homogeneous. Their population age structures and the pace at which populations are maturing can display significant differences at a sub-national level across ethno-religious groups, as well as in urban versus rural areas.<sup>46</sup>

Recent research finds a correlation between higher risk for instability and a rapidly growing youthful minority that is politically dissonant and regionally or residentially segregated within a more mature population.<sup>47</sup>

Uneven demographic change along ethno-religious lines can have important implications for political representation and for the balance of power. Cincotta argues that 'tensions can arise when changes in ethnic or religious group distribution and composition ... are perceived as threats to the political character, tradition, or cultural practices of another group' or when 'groups are denied political access commensurate with their perceived share of the population'.<sup>48</sup>

### Development pressure

Negative economic performance and poor development feature prominently in literature as drivers of political instability.<sup>49</sup> The drivers of the economic instability model included in this report are gross domestic product (GDP) per capita, purchasing power parity, GDP per capita growth and life expectancy.

Some interpret GDP per capita as a measure of the economic opportunity cost of war<sup>50</sup> while others treat

it as a crucial indicator of state capacity.<sup>51</sup> GDP per capita is a measure of the economic sophistication of a country and broadly reflects levels of development. It has been widely shown to be significantly correlated with instability across time, with most countries experiencing political instability having GDP per capita under US\$10 000 per person.

Low levels of GDP per capita reflect low levels of investment in human development, lack of infrastructure, poor government capacity, and often central governments that are viewed as lacking legitimacy. As Jonathan Di John summarises, 'Very negative economic performance surely contributes to undermining regime and government legitimacy and therefore may increase widespread support for abrupt and even violent changes.'<sup>52</sup>

Most countries with political instability have GDP per capitans under US\$10 000 per person

Low levels of GDP per capita growth suggest limited scope for improved development opportunities. Poor GDP growth can also signal broader social instability.

Life expectancy is another key measure of human development.<sup>53</sup> Low life expectancy reflects governments that are unable to provide essential services, and populations with limited (and often unequal) access to medical care. Low life expectancy tends to exist in countries with very high infant mortality rates, generally due to a high prevalence of communicable disease.

### Governance pressure (regime type)

Governance and political institutions are other key drivers of political instability.<sup>54</sup> The model included in IFs uses a measure of the absolute distance from a value of 10 on a 20-point scale measuring regime type as per the Polity IV project run by the Center for Systemic Peace (see Box 2).<sup>55</sup> The value of 10 reflects a fully mixed regime type or anocracy and is positioned between genuinely autocratic and genuinely democratic regime types. Anocracies 'present situations where odd combinations of democratic and autocratic authority patterns could be observed'.<sup>56</sup>

## Box 2: The Center for Systemic Peace Polity IV Composite Index

The Center for Systemic Peace Polity IV Composite Index categorises states according to their regime characteristics. It provides a spectrum of governing authority types from full autocracies to mixed democratic/authoritarian systems (or anocracies) to fully institutionalised democracies. It focuses on

the authority characteristics of regimes, with attention to six component measures: regulation of executive recruitment, competitiveness of executive recruitment, openness of executive recruitment, constraints that exist on executive action, regulation of political participation, and competitiveness of political participation.<sup>57</sup>

Jack Goldstone et al have highlighted the destabilising character of anocracies.<sup>58</sup> Their research suggests that anocracies are about six times more likely than democracies and 2.5 times more likely than autocracies to experience a major regime change within five years and over 70% more likely to experience such change within 10 years.<sup>59</sup>

Autocracies use repression and co-optation to restrain opposition forces, and democracies settle societal grievances via political inclusion and the provision of public goods.<sup>60</sup> Partial democracies are less effective in both respects, which can lead to political instability.

The anocratic spectrum is broad. It can accommodate different types of political settlements with varying proclivity to the onset of political instability.<sup>61</sup> Anocracies are often characterised by ‘hybrid political settlements’, which according to Tim Kelsall are more vulnerable to experience organised violence:

‘The most powerful elites accept the basic terms of the settlement but will be prepared to use violence or its threat at least some of the time; there may also be a minority of elites that are less accepting, for example regional or radical leaders, who use violence to try and achieve their aims on a more regular basis. Of the elites that accept the settlement, some are motivated primarily by spoils, some sign up to and are coordinated under a collective vision – perhaps of nationhood or even development – and some are motivated by both. The bureaucracy is permeated by patronage and nepotism, but civil servants are not entirely neglectful of their public duties; moreover, some pockets of excellence may be found.’<sup>62</sup>

Kenya, Uganda and Nigeria are examples of hybrid political settlements in sub-Saharan Africa.<sup>63</sup>

Goldstone et al found that on the anocratic spectrum, partially democratic states with factionalised party systems are particularly vulnerable to the onset of political instability (both civil wars and adverse regime change).<sup>64</sup> Factionalism occurs when ‘parochial or ethnic-based political factions ... regularly compete for political influence in order to promote particular agendas and favor group members to the detriment of common, secular, or cross-cutting agendas’,<sup>65</sup> such as the (perceived) Tigrayan dominance of Ethiopia’s political system.

### Structural imbalances

A fourth potential path to political instability relates to imbalances or uneven progress across key development transitions.<sup>66</sup> The approach to modelling instability with structural imbalances is rooted in literature on modernisation and structural economics, where development processes tend to unfold in patterns.<sup>67</sup>

Anocracies are about six times more likely than democracies to experience a major regime change

Globally, states have made three transitions: a security transition to consolidate a monopoly on the legitimate use of force, then building bureaucratic capacity, and finally increasing inclusive decision making.<sup>68</sup> For example, as economies become more complex they require more capable governments and educated populations.<sup>69</sup>

These transitions often overlap and may proceed in parallel, as is the case in sub-Saharan Africa. The theory is that imbalances across these patterns or transitions relate to political instability.



Structural imbalances are operationalised by measuring the residuals in relationships between two variables. The instability model included in IFs measures structural imbalance across the dimensions of democracy, development and demography: regime type versus GDP per capita; life expectancy versus GDP per capita; and youth bulge versus regime type.<sup>70</sup>

The relationship between regime type and economic sophistication (measured by average levels of GDP per capita) shows that low-income democracies are more vulnerable to political instability than any level of autocratic regime. This reflects literature exploring premature democratisation and focuses on the institutional character of decision making and power in a state, not the de facto level of inclusion across identity groups. Countries less stable on this sub-component of the structural imbalance measure are poor yet institutionally democratic.

The second sub-dimension explores the relationship between life expectancy and economic sophistication. Here, countries at all levels of development with poor health outcomes are at increased risk of political instability. This would overlap with other findings that identify high infant mortality as a driver of instability and an indicator of poor government capacity and legitimacy.<sup>71</sup>

The final sub-component of this measure is the relationship between youth bulge and regime type. This measure finds that states with atypically large youth populations (as a share of the total population) relative to their level of institutional democracy are more prone to political instability. Those countries tend to be young and relatively democratic. South Africa and Kenya are examples.

### Horizontal inequalities

The final model captures horizontal inequalities, understood as social fragmentation with some groups systematically advantaged or disadvantaged economically, politically or socially.<sup>72</sup> Groups can be categorised by ethnicity, race, religion, region, language, etc. and these categories can overlap.

Grievances related to exclusion from access to power, natural resources, security and justice are root causes of violent conflict.<sup>73</sup> Relative deprivation along ethnic, religious and/or sectarian lines may compound group grievances and lead to mobilisation for violence.

Arnim Langer and Frances Stewart argue that the combination of political and cultural inequalities is 'particularly likely to lead to group mobilization, because political exclusion gives leaders a strong incentive to mobilize supporters, while cultural inequality generates strong grievances among potential supporters, who are therefore ripe for mobilization'.<sup>74</sup>

It is a huge challenge to systematically measure horizontal inequalities across countries and time. There has traditionally been a focus on vertical inequalities or inequalities among individuals or households.<sup>75</sup>

Poor democracies are more vulnerable to political instability than any type of autocratic regime

IFs includes a simple model that captures some aspects of potential cross-group discrimination. It includes state-led discrimination, which is defined as having a discrimination index value (political or economic) of four or more, according to the Minorities at Risk dataset,<sup>76</sup> religious heterogeneity (number of religions), and population size as larger populations tend to be more heterogeneous.

These variables reflect the broader picture but do not capture the impact of horizontal inequalities. Large-N studies – i.e. those involving a large number of cases – also do not account for spatial variations in group welfare within countries, despite the fact that political violence is often limited to specific areas. More data gathering and measuring of the sub-national distribution of resources is needed.<sup>77</sup>

Gudrun Østby, Ragnhild Nordås and Jan Ketil Rød constructed new disaggregated data on welfare and socio-economic inequalities in 22 countries in sub-Saharan Africa, between and within sub-national regions. They found that the onset of armed conflict was more likely in regions with low levels of education, strong relative deprivation regarding household assets, strong intraregional inequalities, and the combined presence of natural resources and relative deprivation.<sup>78</sup>

In another study, Hanne Fjelde and Østby found that regions with strong vertical and horizontal socio-economic inequalities were significantly more exposed

to violent communal conflicts, and that regions in which the largest ethnic group was severely disadvantaged compared to other groups were particularly prone to communal conflict.<sup>79</sup>

In Nigeria for example, infant and child mortality is unevenly distributed in the country's six geopolitical zones, with the north-west and north-east having much higher rates than the rest of the country and the south-west in particular.<sup>80</sup>

## Key trends in organised political violence

Conflict and violence are an integral part of state formation and development.<sup>81</sup> States in sub-Saharan Africa are young and poor, and their state formation has been severely disrupted by colonialism and its legacy. Organised political violence has been a central feature of the region's post-colonial history.<sup>82</sup>

Overall, sub-Saharan Africa has made important gains in peace and stability over the past two decades. This partly reflects improvements in some critical dimensions of vulnerability, in particular demographics and development. Geopolitical shifts since the end of the Cold War led to a decline in external state support for insurgencies.

The promotion of multi-party elections may also have reduced warfare in the region. And despite their shortcomings, significant multilateral, regional and bilateral efforts and investments into conflict prevention, peacemaking, peacekeeping and peacebuilding have contributed to greater stability.<sup>83</sup>

Intrastate conflict is the predominant form of organised political violence or armed conflict in sub-Saharan Africa.<sup>84</sup> This fairly broad category encompasses large-scale organised violence that typically causes high numbers of fatalities, i.e. civil wars, as well as smaller-scale armed conflict.

The Uppsala Conflict Data Program (UCDP) distinguishes between state-based conflict, non-state conflict and one-sided violence.<sup>85</sup> And although labelled internal, these types of conflict often has significant transnational or international dimensions.<sup>86</sup>

With the end of the Cold War, sub-Saharan Africa experienced a decline in large-scale organised violence or civil war, typically fought for state control. Subsequently, fatalities also declined.<sup>87</sup> Nevertheless,

smaller-scale or minor armed conflicts increased and persist across the region, typically on the peripheries of states (see Figure 3).<sup>88</sup> This trend is unlikely to change significantly over the coming decades.<sup>89</sup> Unlike during the Cold War and its immediate aftermath, contemporary armed insurgents in sub-Saharan Africa are typically factionalised and divided.<sup>90</sup>

Between 2001 and 2016, the countries in sub-Saharan Africa with the most fatalities from armed conflict were Sudan, Nigeria, the DRC, Somalia, South Sudan and the Central African Republic.<sup>91</sup>

From 2014 sub-Saharan Africa experienced a significant uptick in large-scale and smaller-scale organised violence, mainly driven by wars in Nigeria, Somalia, Sudan and South Sudan as well as smaller-scale armed conflicts in Burundi, Cameroon, the DRC, Republic of the Congo, Eritrea, Ethiopia, Kenya, Mali, Mozambique, Niger, Nigeria, Rwanda, South Sudan and Uganda.<sup>92</sup>

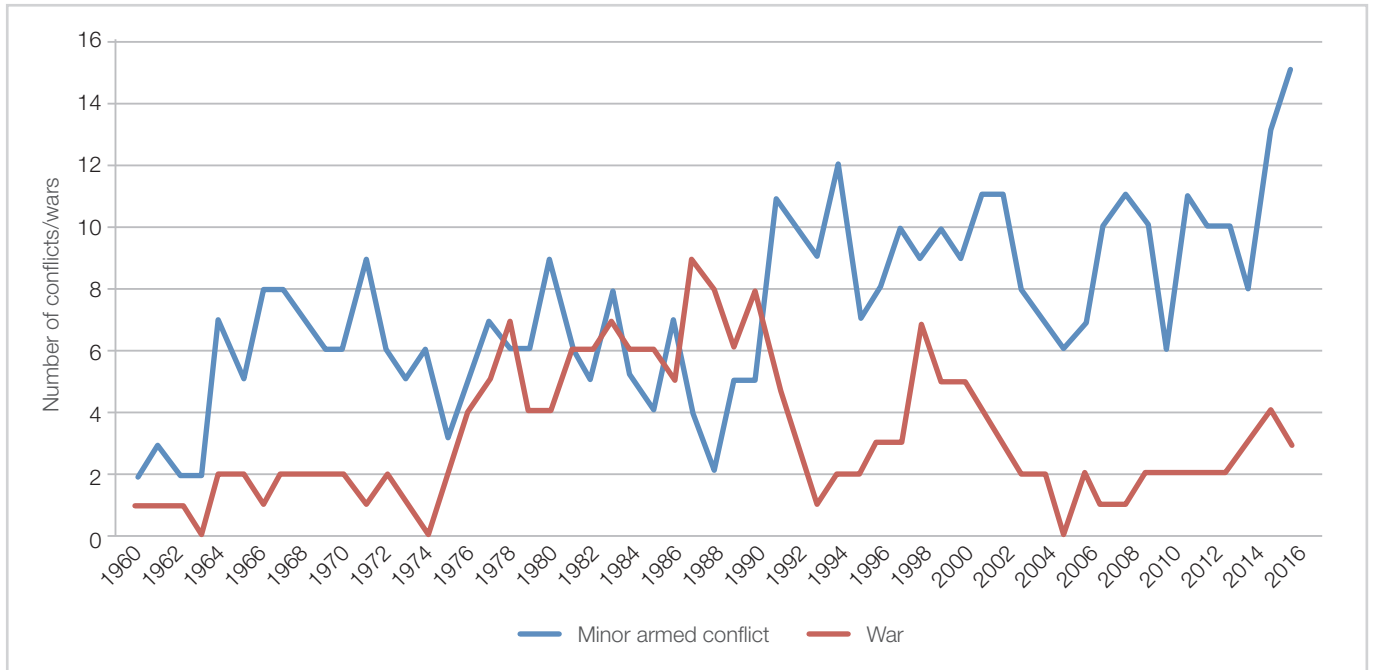
Africa is the world region most affected by non-state organised violence.<sup>93</sup> According to the UCDP, between 1989 and 2015 non-state violence in sub-Saharan Africa had 'been concentrated in a handful of highly affected countries: Nigeria, Sudan, Somalia, Ethiopia, and Kenya'.<sup>94</sup> This type of violence is perpetrated by rebels, militias (communal, ethnic and political), organised political groups or external forces.<sup>95</sup>

## Sub-Saharan Africa has made important gains in peace and stability over the past two decades

Communal violence is a highly localised form of non-state organised violence – often over access to resources such as land or water – and is prominent in sub-Saharan Africa.<sup>96</sup> Violence related to elections has also increased.<sup>97</sup>

Africa experiences the highest level of one-sided violence in the world, both in the number of actors as well as civilians killed.<sup>98</sup> Reported incidents of violence against civilians have been on the rise over the past decade, with civilians targeted by an increasing number of actors, including states, rebel forces and militias.<sup>99</sup> Events in Sudan, Somalia, Burundi, Nigeria and the DRC drove this surge between 2012 and 2017.<sup>100</sup>

**Figure 3: Annual number of minor armed conflicts versus number of wars in sub-Saharan Africa, 1960–2016**

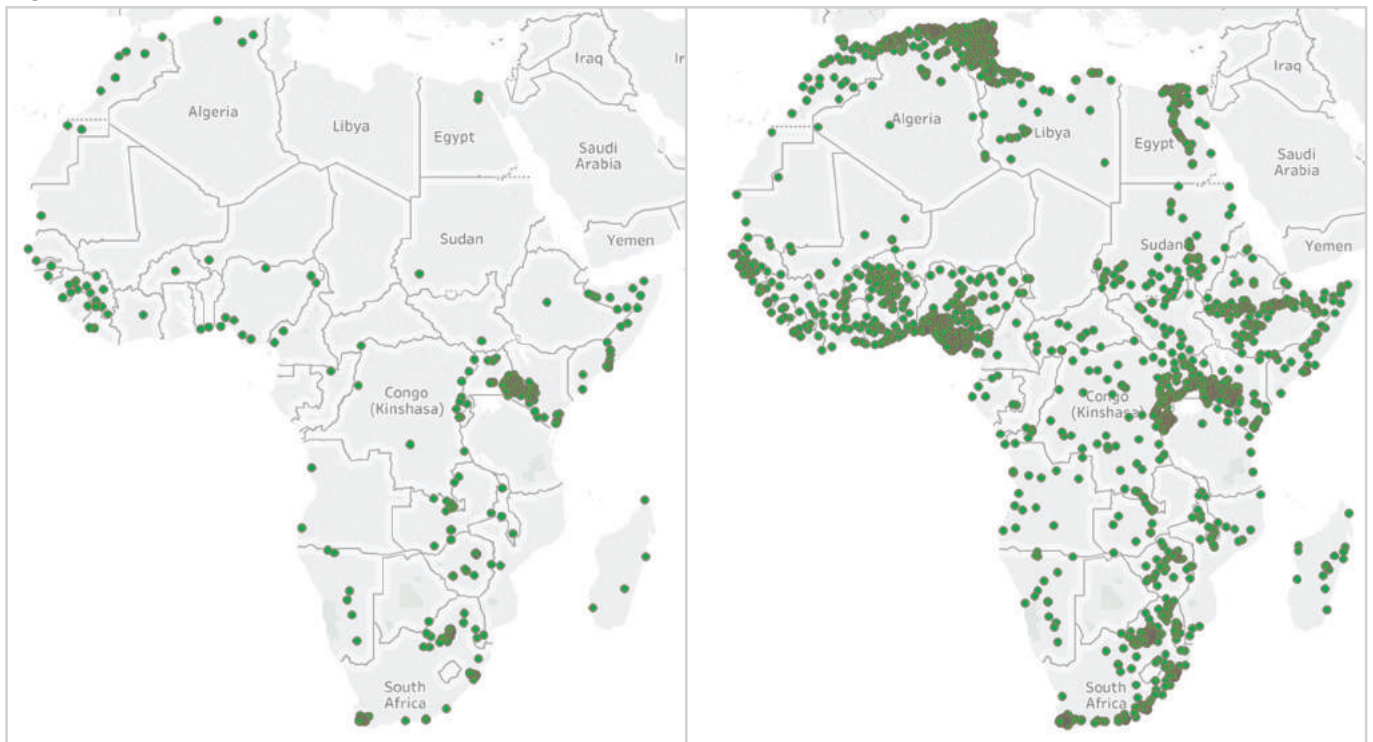


Source: Uppsala Conflict Data Program/Peace Research Institute Oslo armed conflict dataset v. 17.2.

Low-intensity political violence such as violent riots and demonstrations have risen sharply across sub-Saharan Africa over the past decade.<sup>101</sup> Non-violent protests, often against governments, have also become a much

more prominent feature of contemporary African political dynamics, particularly but not exclusively in urban areas (see Figure 4).<sup>102</sup> South Africa, Nigeria, Kenya, Ethiopia and Somalia had the highest number of protest

**Figure 4: Protests and riots in sub-Saharan Africa, 2007 versus 2017**



Source: Armed Conflict Location & Event Data Project.

events between 1997 and 2017. Although protests are non-violent by definition,<sup>103</sup> they can be precursors for contested and potentially violent government transitions.<sup>104</sup>

### Structural pressures

Exploring the future risk of political instability in sub-Saharan Africa requires assessing trends across multiple models. These models describe distinct paths to instability, and risk stemming from them may evolve differently.

This section presents a brief historical analysis and a forecast of the average probability of the onset of political instability across multiple dimensions for sub-Saharan Africa and its different sub-regions, namely West, Central, East and Southern Africa.

In general, sub-Saharan Africa’s tendency to experience political instability has declined, and the region is likely to stay on this overall positive trajectory. However, structural pressures have ebbed and flowed (see Figure 5), a finding that mirrors the cyclical nature of violent conflict in the region.

Historically the largest pressure driving political instability was poor development and the associated lack of state capacity and legitimacy. This pressure has generally

reduced despite a small peak in the immediate aftermath of the Cold War. It is expected to gradually reduce further until 2040, reflecting an overall improvement in sub-Saharan Africa’s socio-economic performance. In fact by 2040 poor development as a driver of political instability is expected to be half as strong as its historical peak.

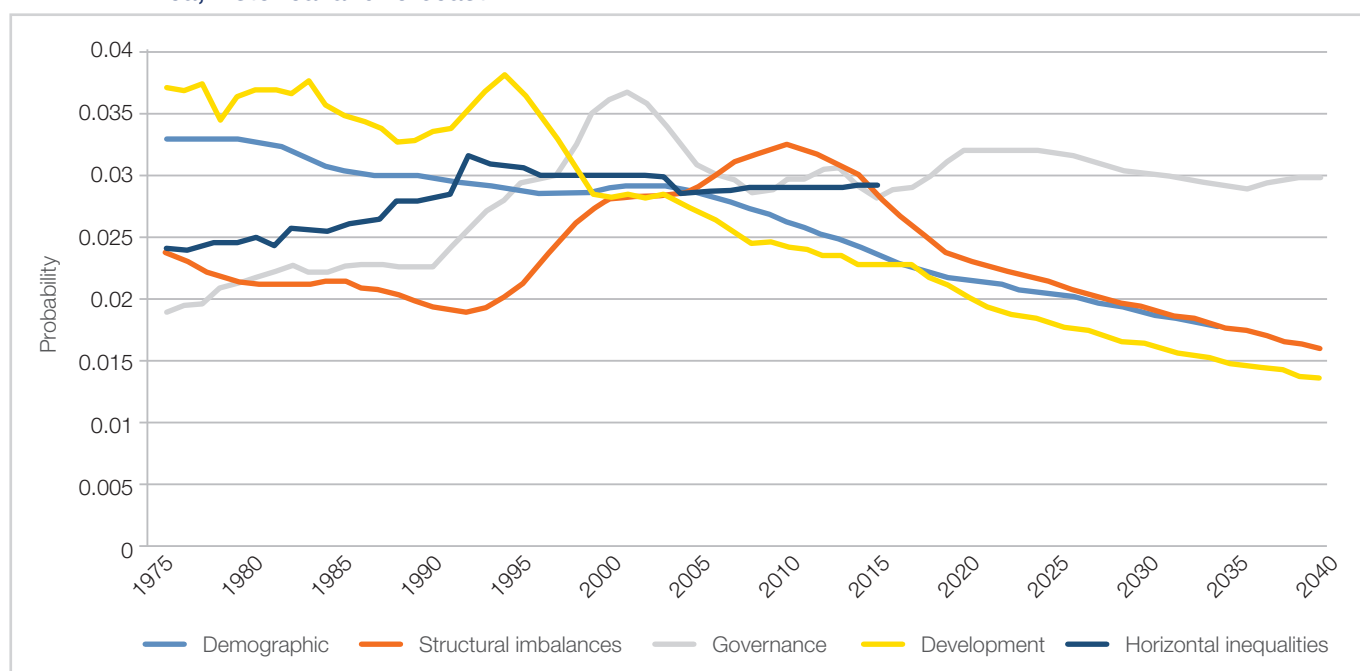
Demographic pressure has also reduced. It is expected to further decrease by more than half comparing values in 1975 with 2040.

Structural pressures ebb and flow pointing to the cyclical nature of violent conflict

Other pressures have seen historical growth, such as horizontal inequalities. The level of horizontal inequality increased by nearly 30% from 1975 to 1992, but has been relatively stable since then.

Pressure from regime type was relatively low until the end of the Cold War when it started to grow, at the same time as democratisation processes and the transition of many states from autocratic regimes to more mixed or anocratic regimes. This was

**Figure 5: Average probability for the onset of political instability across different models for sub-Saharan Africa, historical and forecast**



Source: IFs v. 7.34.

accompanied by the introduction of multiparty elections in most countries. The rise in electoral democracies alongside a number of autocratic states in the region explains the decline in risk associated with this pressure during the following decade.

However, most states in contemporary sub-Saharan Africa are still characterised by anocratic regimes. IFs projects that the associated pressure for political instability will remain significant over the coming decades – higher than any other dimension of instability explored in this report.

The salience of governance as the strongest structural driver of political instability is contingent on inclusive versus exclusionary forms of political organisation.<sup>105,106</sup> Stable states tend to be inclusive or ‘inclusive enough’ on the elite level. Such states ‘solve the problem of violence by granting political elites privileged control over parts of the economy, each getting some share of the rents’.<sup>107</sup>

These elite groups form ‘a dominant coalition that includes the groups with potential for violence’ to control violence.<sup>108</sup> They have an incentive to ‘refrain from violence most of the time’ to protect their rents.<sup>109</sup> Examples include Kenya and Nigeria.

Stefan Lindemann argues that inclusive elite bargains, such as in Zambia, enable the preservation of political stability while exclusionary elite bargains, such as in Uganda, ‘give rise to trajectories of civil war’.<sup>110</sup>

These findings dovetail with Kelsall’s typology of political settlements according to which exclusive, spoils-driven, personalised settlements, such as in the DRC, are ‘under constant threat of conflict, if not conflict itself’. This is because, ‘Only a minority of elites accept the settlement’s terms, held together mainly by access to spoils, and personalistic, clientelistic norms govern the bureaucracy’.<sup>111</sup>

The pressure from structural imbalances was low between 1975 and 1995, and then grew significantly. This growth was driven by a wave of democratisation across sub-Saharan Africa without a corresponding increase in GDP per capita – an imbalance across two key areas of development.

IFs calculates that the risk for political instability associated with structural imbalances has declined recently to levels in line with historical averages. This

has largely been driven by the shrinking youth bulge and overall improvements in life expectancy due to successes in reducing communicable disease. The overall trend points to increasing convergence across the three relationships examined in this report.

## Regional trends

The broad analysis above illustrates some common patterns and trends across sub-Saharan Africa. The regional analysis below points to important variances in the historical and likely future evolution of pressures stemming from the dimensions explored in this report.

### Demographic pressure

Sub-Saharan Africa’s overall age-structural condition does not currently promote political stability. However, demographic pressures are reducing steadily across time and have been generally reducing since the mid-1970s. Across most of the historical period this population pressure was highest in West Africa.

IFs projects that the region most exposed to demographic pressure in future will be Central Africa, though the probability of political instability driven by demographics is expected to be lower than it was in West Africa over the historical period explored here (see Figure 6).

### Nigeria is the country most at risk from demographic pressure

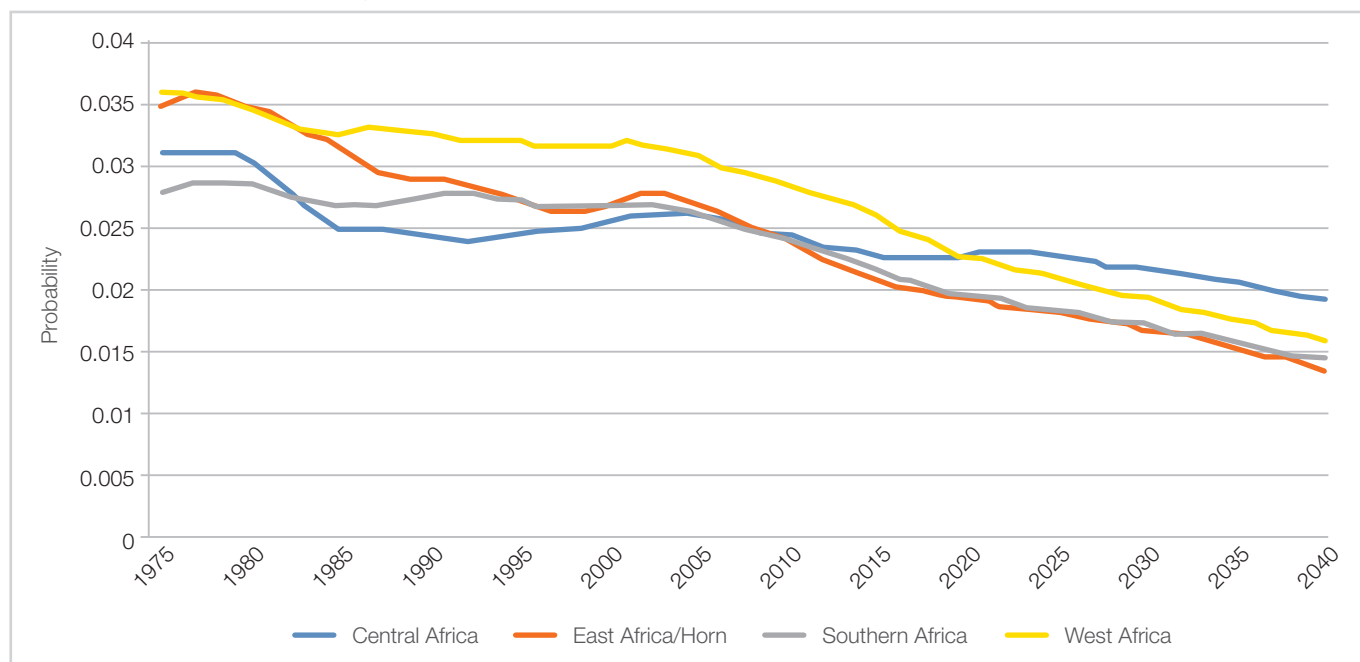
Apart from significant differences in population size, the variance in current and expected risk largely reflects the stage of the demographic transition a country or region finds itself in.<sup>112</sup> Most countries in sub-Saharan Africa are in the early and middle stages of this process (with relatively high birth and death rates), and hence more likely to experience political instability than those that are further along in the transition.<sup>113</sup>

Southern Africa is the most advanced in the demographic transition, closely followed by East Africa and the Horn. Both Central and West Africa significantly lag behind, so their demographic risk profile is higher than that of the other two regions.

A country-by-country analysis reveals that the 10 countries exposed to the greatest demographic pressure



**Figure 6: Average probability of the onset of political instability driven by demographic pressures for regions in sub-Saharan Africa, historical and forecast**

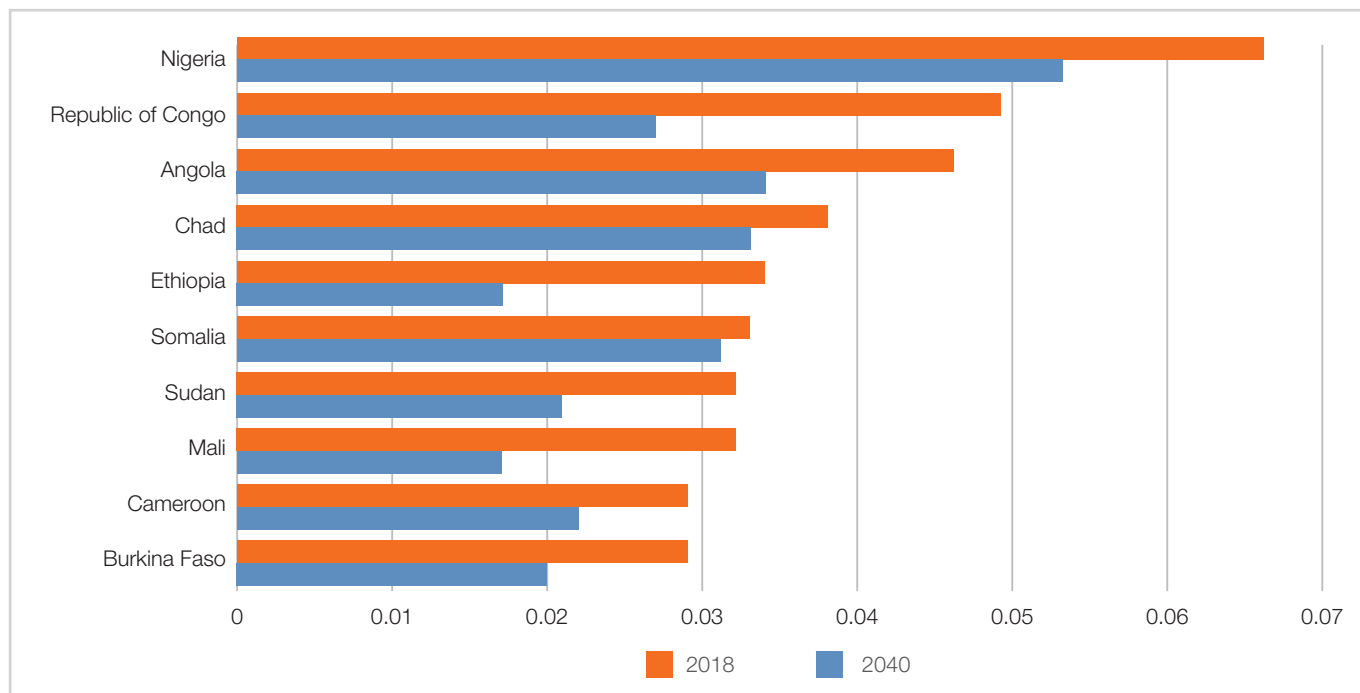


Source: IFs v. 7.34.

(in 2018 and 2040) are spread across sub-Saharan Africa (see Figure 7). This group has considerable overlap with the countries that experienced the most fatalities from organised political violence between 2001 and 2016.

This is except for the Central African Republic and South Sudan, which have current and expected demographic risk levels more in line with the averages for sub-Saharan Africa.

**Figure 7: Top 10 countries in sub-Saharan Africa as per greatest demographic pressure, 2018 and 2040**



Source: IFs v. 7.34.

Nigeria faces the highest demographic pressure with a probability for political instability more than three times as high as the average for sub-Saharan Africa. This situation is expected to persist. The DRC and Angola are also exposed to relatively high demographic pressure.

The early stages of the demographic transition go hand in hand with large youth populations. Sub-Saharan Africa's youth bulge peaked in 2005 (at roughly 50%) and has since been declining slowly. It is expected to continue to reduce to about 43% by 2040, but will remain above the critical threshold of 40%.

Central and West Africa are set to retain the largest youth bulge in the medium term and therefore face greater pressure to experience political instability driven by demographic factors.

All countries in sub-Saharan Africa except Mauritius and the Seychelles have a current median age below 26.3 years. They therefore remain vulnerable to political instability from demographic pressures, including linked to 'democratic backsliding'. IFs forecasts that most countries in sub-Saharan Africa have between 20 and 50 years before reaching the break-even point of 26.3 years that is associated with greater political stability. South Africa, Cape Verde and Botswana are likely to cross this threshold before 2025.<sup>114</sup>

Sub-Saharan Africa's demographic transition means the region will see huge increases in the workforce over the coming decades, with potentially significant economic implications. This transition causes the ratio of the number of working-age individuals (i.e. people between 15 and 64) relative to the number of dependents (i.e. children and adults over 65) to increase.

Changing the age structure of a population in this manner can unlock economic growth (the 'demographic dividend') and mitigate the risk of political instability. But the demographic dividend can only materialise if governments also make necessary investments in healthcare, education, basic infrastructure and other social services.

### Development pressure

In sub-Saharan Africa the post-colonial process of state formation is taking place in a context of delayed human and economic development relative to other world regions. Around 37% of Africans or 470 million people

live in extreme poverty, defined as living below US\$1.90 per day, a direct reflection of poor state capacity.

Poor development has historically been a significant driver of instability in sub-Saharan Africa, mostly because of its strong correlation with state capacity and legitimacy. Over time the pressure from poor levels of development has decreased and is expected to decrease further (see Figure 8).

There has been a general trend towards reduced risk across the region, notably after sub-Saharan Africa began to see an uptick in economic growth in the mid-1990s.

The subsequent period of sustained rapid economic growth across the continent was in sharp contrast to the 'lost decades' of the 1990s and 1980s. Between 2001 and 2014, average annual growth in real GDP in sub-Saharan Africa was above 5%. In 2016, however, the region only grew at about 1.5%, the lowest level in two decades.<sup>115</sup>

Growth cycles are generally too short-lived to support the structural transformation of Africa's economies

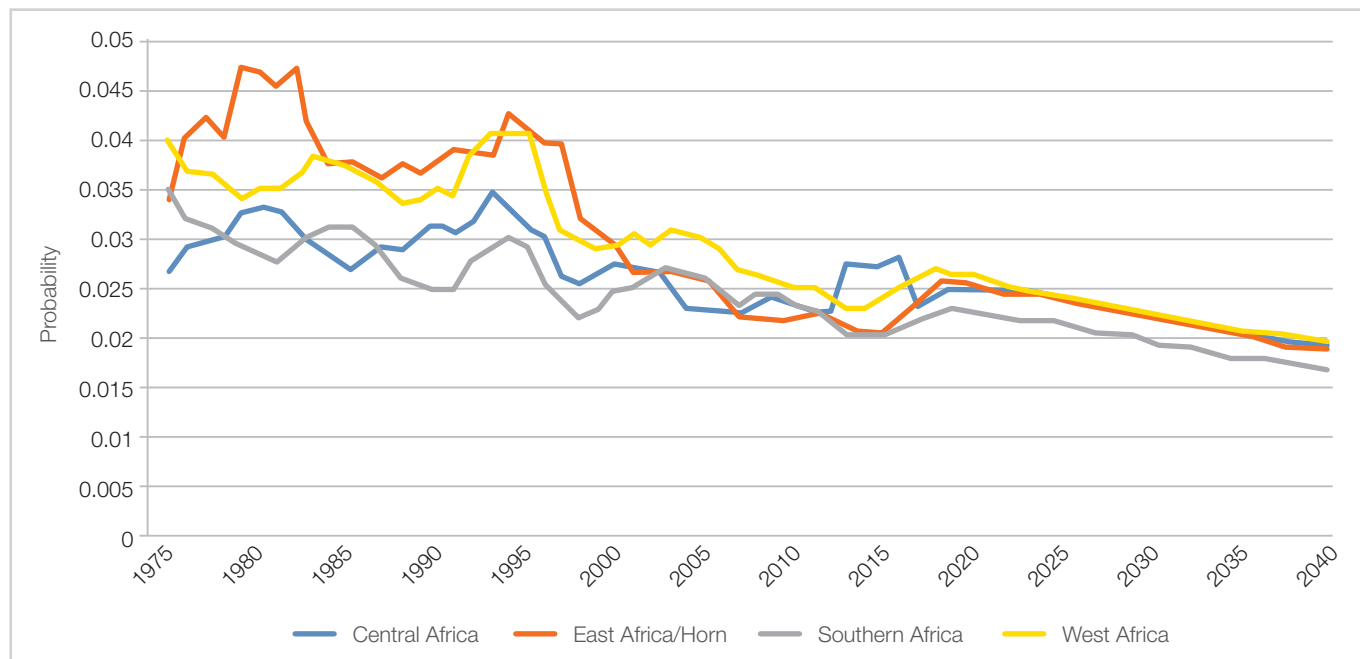
The reasons for this slowdown are predominantly external – a weaker global economy (in the aftermath of the global financial crisis) that reduced demand for consumables, lower capital inflows, the sharp drop in international commodity prices (notably for oil and metals) and the rebalancing of the Chinese economy. Given extremely rapid population growth, average GDP per person actually shrank by 1.1% in 2016.<sup>116</sup>

This situation is reflected in a temporal uptick in pressure across the four regions, which also points to sub-Saharan Africa's vulnerability to global economic and financial volatility or external shocks.

Growth cycles are generally too short-lived to allow for the structural transformation of Africa's economies and create the conditions for long-term inclusive growth and sustainable development, in particular poverty reduction.<sup>117</sup>

In line with the more recent recovery of the global economy, pressure from poor levels of development has decreased again and is expected to continue to decrease. This is in line with an overall favourable yet very modest economic outlook for sub-Saharan Africa.<sup>118</sup> Resource-

**Figure 8: Average probability of onset of instability driven by levels of development for regions in sub-Saharan Africa, historical and forecast**



Source: IFs v. 7.34.

dependent countries/regions (especially oil and gas) will remain vulnerable to short-term price shocks.

IFs forecasts to 2040 show a more or less steady decrease in pressure from poor development for sub-Saharan Africa and its regions. Over the coming decades, and in line with the historical trend, Southern Africa will remain the least vulnerable to political instability from poor development. East Africa and the Horn have historically been most at risk, but on average that risk has reduced.

East Africa and the Horn are however not a homogenous region and risk across countries varies dramatically, with Somalia, Burundi and South Sudan facing much higher risk from poor development than Kenya, Rwanda or Ethiopia.

Sub-Saharan Africa's low-income economies are twice as likely to experience political instability associated with development pressures than the region's upper-middle-income economies.<sup>119</sup>

Figure 9 lists the 10 countries in sub-Saharan Africa most at risk of political instability due to pressure from poor development, with South Sudan, Central African Republic and Somalia being the most vulnerable. These countries are among the countries with the highest

poverty burden in sub-Saharan Africa with more than 50% of the population living in extreme poverty, defined as living below US\$1.90 per day.

### Governance pressure

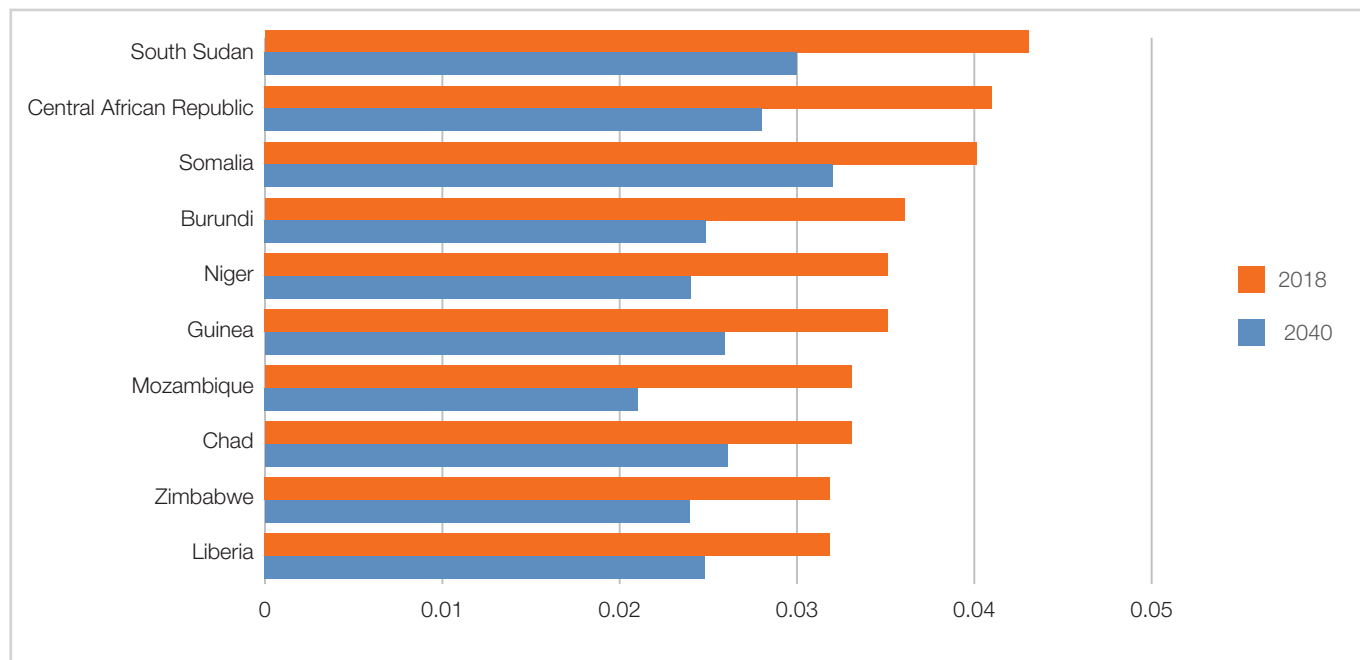
Most of the countries in sub-Saharan Africa are anocracies. These relatively unconsolidated regimes, of which many have recent histories of authoritarian rule, combine elements of both autocracy and democracy (highlighted in Table 2) and are therefore prone to political instability, including abrupt regime change.

South Sudan, CAR and Somalia are the countries most at risk from poor development

Abrupt regime changes can be seen as 'tipping points' in the political settlement or balance of power that often lead 'to a more or less prolonged period of upheaval or conflict, before a new settlement is formed'.<sup>120</sup>

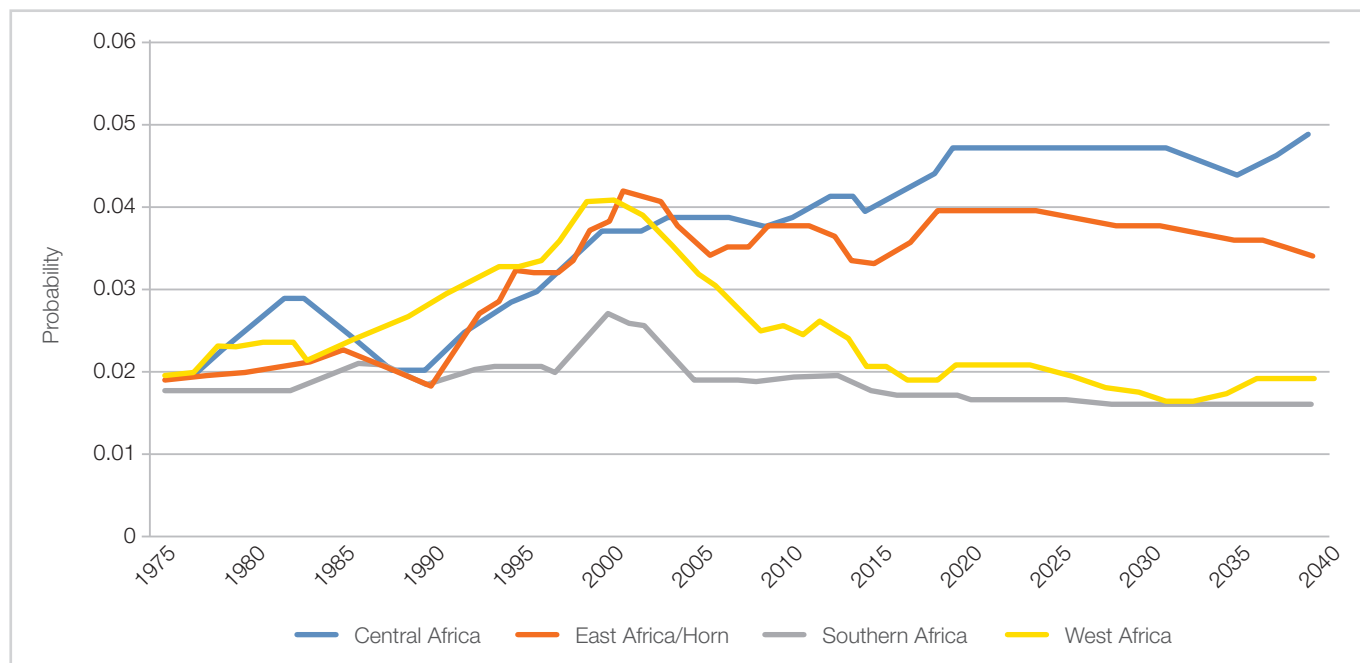
The probability of political instability driven by anocratic governance structures has grown across time and through the end of the Cold War, especially in Central, East and West Africa (see Figure 10).

**Figure 9: Top 10 countries in sub-Saharan Africa as per greatest pressure from poor development, 2018 and 2040 (ranked for 2018)**



Source: IFs v. 7.34.

**Figure 10: Average probability of onset of instability driven by governance structure for regions in sub-Saharan Africa, historical and forecast**



Source: IFs v. 7.34.

Central Africa is projected to see increases in the average risk for political instability associated with anocratic regimes, and this pressure remains relatively high in East Africa and the Horn. Most of West Africa is less exposed

to pressure from anocratic regimes as average levels of democracy are relatively high.

This analysis concurs with recent findings from Freedom House<sup>121</sup> that point to increasing divergence between the

regions since the initial wave of democratisation in the early 1990s: ‘Southern and West Africa have significantly improved their democratic governance, but Central and East Africa have suffered major setbacks.’<sup>122</sup>

A recent report by the ISS on Central Africa highlights that the region ‘currently has some of the longest-serving and oldest African presidents’ and that ‘some kind of turnover (i.e. change in leadership) is inevitable in the next 10 to 15 years’:

Given the history of personalised presidential governance, political transitions will be clouded by uncertainties regardless of how they occur. Whether they take place through violence or the ballot box, intense power struggles – between personalities, among political parties and within ruling parties – are likely to characterise political transitions in the region. Such succession-related challenges will require fundamental political, economic and social adjustment in the short term, if the region is to avoid being trapped in a continuous cycle of violence and underdevelopment.<sup>123</sup>

The transitioning of regimes on the autocracy/anocracy/democracy spectrum often involves organised violence connected to electoral processes, as seen in Kenya (2007-8), Ivory Coast (2010-11), Nigeria (2007) and Burundi (2015). Political competition where democratic institutions are not consolidated implies potential for violence, which can be exploited by both incumbents as well as the opposition.<sup>124</sup>

According to IFs the countries with the highest risk of political instability due to their institutional governance structure are Angola, Burundi, Cameroon, Chad, Republic of the Congo, Ethiopia, Mauritania, Rwanda,

Sudan, Togo, Uganda (highlighted in red in Table 2). All of them are anocracies tending more towards the autocratic than the democratic.

In some countries most at risk, heads of states are actively undermining democratic governance as they try to hold on to power. According to Freedom House, since 2015 leaders in Uganda, Burundi, Rwanda, Republic of the Congo and the DRC ‘have pushed through constitutional changes to term and age limits, or otherwise evaded such barriers, to perpetuate their rule’ and, ‘Efforts by civil society and the public to combat these power grabs have been met with intimidation, political violence, torture, and arrests.’<sup>125</sup>

### Structural imbalances

The average risk of political instability associated with structural imbalances grew significantly across all regions after the end of the Cold War, then started to decline in the mid-2000s (see Figure 11). This growth was driven by an increasing imbalance in the relationship between levels of development and democracy – or rapid democratisation without corresponding increases in development measured in GDP per capita.

In some high risk countries heads of states are undermining democratic governance as they try to hold on to power

For example, in the two decades following the end of the Cold War average levels of democracy in West Africa improved significantly. But GDP per capita did not increase accordingly, which explains the relatively high instability risk.

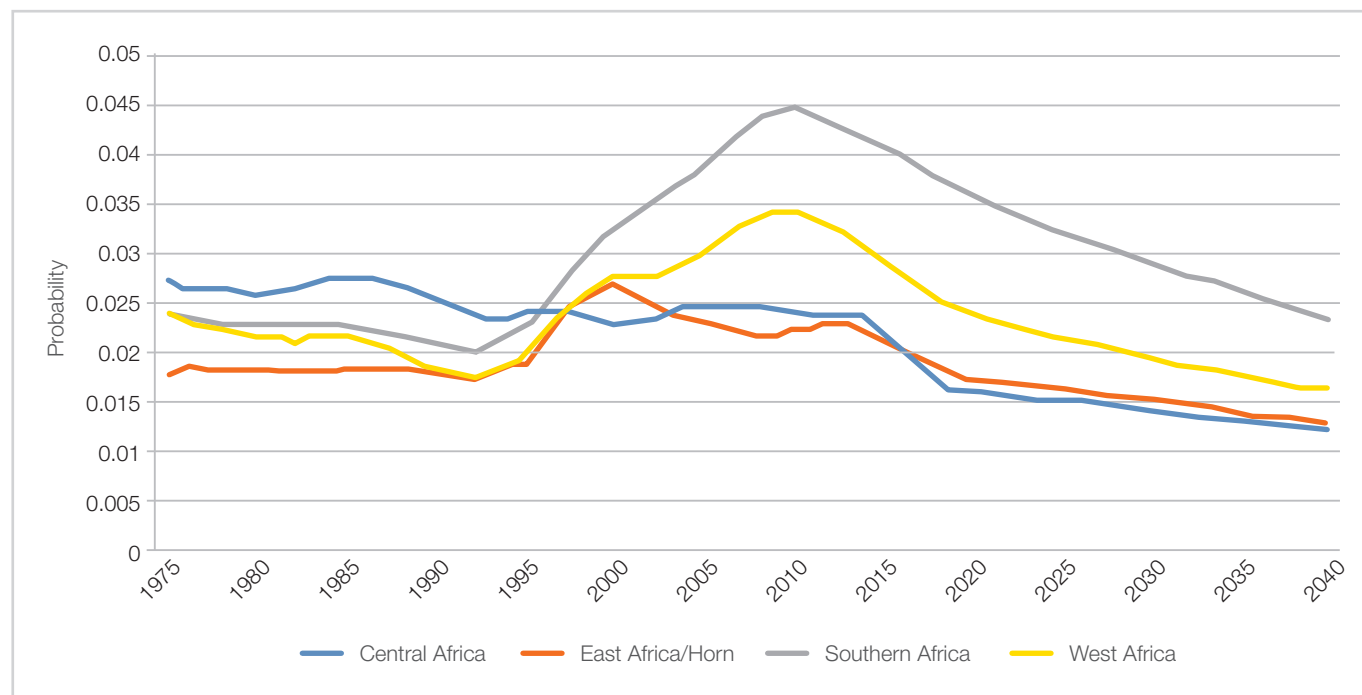
**Table 2: Levels of democracy in sub-Saharan Africa (Polity IV), 2018**

<b>Democracies</b>	Mauritius, Cape Verde, South Africa, Kenya, Comoros, Botswana, Lesotho, Ghana, Senegal, Zambia, Benin, Sierra Leone, Nigeria, Namibia, Guinea Bissau, Malawi
<b>Anocracies*</b>	Burkina Faso, Madagascar, Liberia, Niger, DRC, Mozambique, Mali, Somalia, Zimbabwe, Guinea Bissau, Ivory Coast, Gabon, Tanzania, Sao Tome and Principe, South Sudan, <b>Burundi, Uganda, Central African Republic, Mauritania, Togo, Angola, Chad, Rwanda, Ethiopia, Cameroon, Sudan, Congo</b> , Gambia
<b>Autocracies</b>	Equatorial Guinea, Eritrea, Swaziland

Source: IFs, v. 7.34.



**Figure 11: Average probability of onset of political instability driven by structural imbalances for regions in sub-Saharan Africa, historical and forecast**



Source: IFs v. 7.34.

The subsequent decline in risk was driven by a projected improvement in the relationship between life expectancy and GDP per capita. This means that reductions in the levels of mortality from communicable diseases have led to significant gains in life expectancy, more in line with expected levels of health based on levels of GDP per capita.

Southern Africa shows the greatest surge in pressure associated with structural imbalances, and is the region most expected to be at future risk. This is largely driven by relatively low life expectancy relative to GDP per capita, mostly due to the devastating impact of HIV/AIDS.

Countries that are poor and institutionally democratic are exposed to a higher risk of political instability

For relatively consolidated democracies like South Africa or Botswana this risk is mitigated by GDP per capita more in line with democratic regimes elsewhere, yet exacerbated by atypically large youth bulges for their levels of democracy.

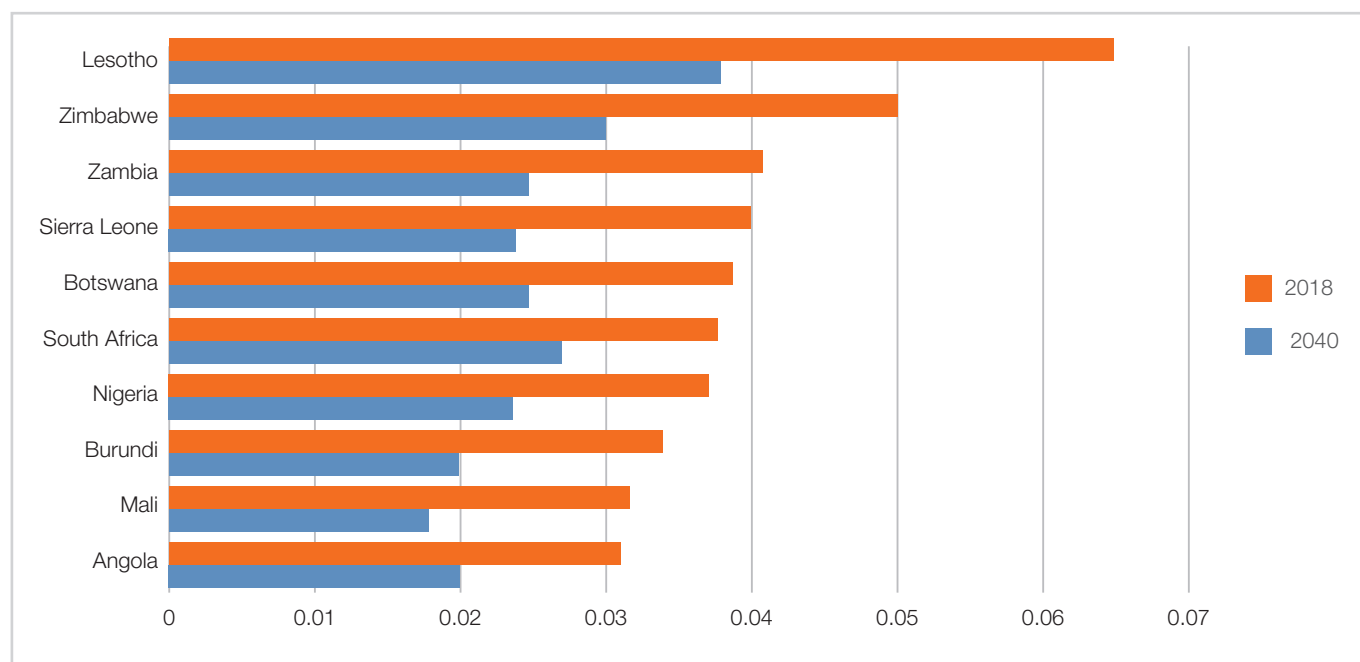
Central Africa and East Africa and the Horn have a lower average risk of political instability driven by structural imbalances. On average, their levels of health and institutional democratic governance are in line with their generally low levels of GDP per capita. In other words, most countries in Central Africa are poor, anocratic and have large youth bulges.

Individually, these attributes increase the risk for political instability, but when analysing the relationship between these separate drivers of instability, there are no apparent imbalances or anomalies. On the contrary, there is balance in the sense that there is stagnation across several key dimensions of development.

In summary, countries that are poor and institutionally democratic are exposed to a higher risk of political instability. Examples include Lesotho, Mali and Malawi. Countries that have larger youth bulges than expected based on their level of institutional democracy are also more prone to political instability. This is the case for South Africa and Nigeria, for example.

Figure 12 shows the 10 countries in sub-Saharan Africa that are most at risk of political instability based on structural imbalances. The relationships that drive or mitigate this risk differ across this grouping.

**Figure 12: Top 10 countries in sub-Saharan Africa as per greatest pressure from structural imbalances, 2018 and 2040**



Source: IFs v. 7.34.

The high pressure from structural imbalances in Lesotho, South Africa and Angola, for example, is mostly driven by the lower-than-expected life expectancy in these countries. Lesotho is more democratic than could be expected based on its level of GDP per capita and has a large youth bulge. Similar dynamics are at play in Zimbabwe, where the large youth bulge is key.

The most significant growth in horizontal inequalities is seen in West and Central Africa

### Horizontal inequalities

Finally, the simple model in this report shows that horizontal inequalities have historically been significant drivers of instability. This is in line with growing empirical evidence in the broader literature.<sup>126</sup> However, the variance across regions is significant (see Figure 13). It is important to note that the measurement of horizontal inequalities is particularly challenging because data is poor and extremely difficult to forecast.

The most significant growth in horizontal inequalities is seen in West and Central Africa, with much lower recent

levels in East and South Africa. As for West Africa and more specifically Nigeria, Ghana, Côte d'Ivoire and Mali, Langer and Stewart state that horizontal inequalities represent 'a serious threat to their political stability', and that the 'past (and ongoing) conflicts are a clear sign of this, and constitute a warning for the future'.<sup>127</sup>

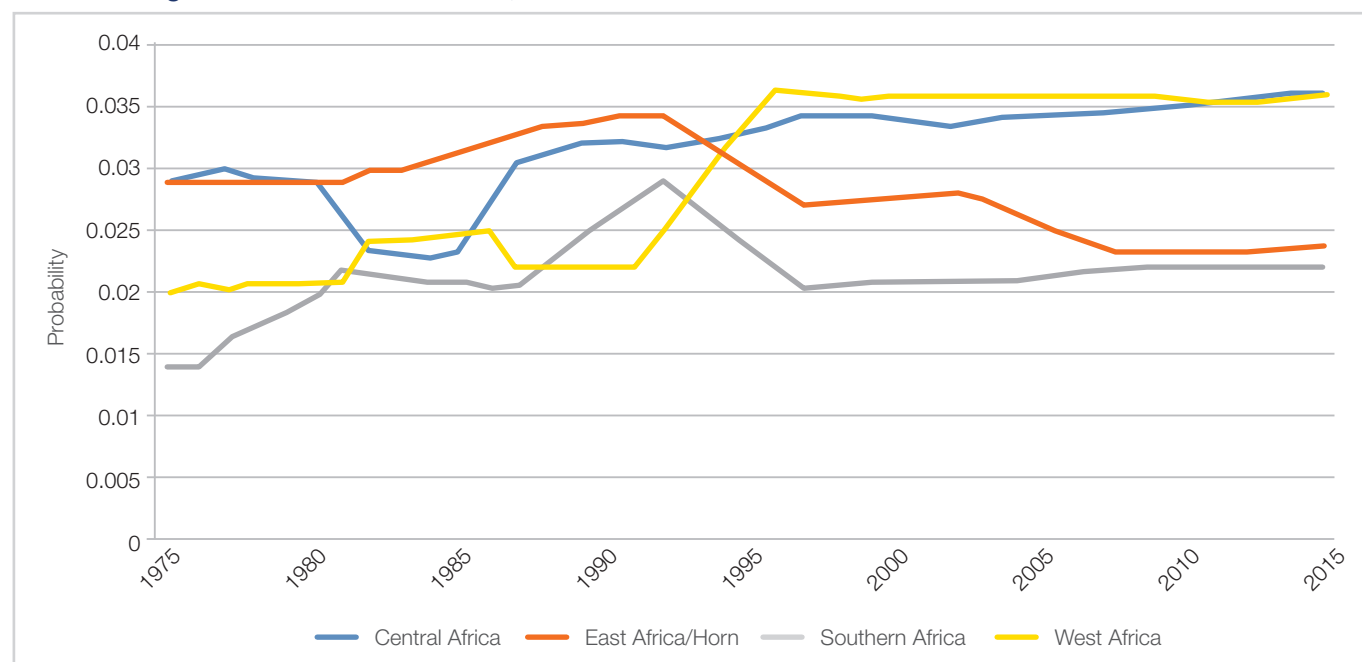
All four countries are very ethnically diverse. With the exception of Mali, they are also religiously diverse (Christian/Muslim). The authors identify 'regional differences and disparities' as 'a common feature of the conflicts' in those countries which have been poorly addressed by policymakers.<sup>128</sup>

### Country risk profiles

The analysis to this point has focused on sub-Saharan Africa as a whole as well as on regional differences. This can also be applied at the country level. Table 3 provides results to 2040 for Ethiopia, Kenya and Nigeria across the four models that are projected to 2040.

By breaking down results across model, it is possible to identify a composite character of instability. For example, Ethiopia has high levels of governance pressure driven by anocratic governance but moderate levels of pressure from demographics and poor development.

**Figure 13: Average probability of onset of political instability driven by levels of horizontal inequalities for regions in Sub-Saharan Africa, historical**



Source: IFs v. 7.34.

**Table 3: Probabilities for the onset of political instability across four models for Ethiopia, Nigeria and Kenya, 2018 versus 2040**

	Ethiopia		Kenya		Nigeria	
	2018	2040	2018	2040	2018	2040
<b>Demography</b>	0.034	0.017	0.023	0.013	0.066	0.053
<b>Governance</b>	0.079	0.079	0.004	0.004	0.013	0.013
<b>Structural imbalances</b>	0.018	0.013	0.007	0.006	0.037	0.024
<b>Development</b>	0.026	0.016	0.022	0.014	0.023	0.018

Source: IFs, v. 7.34.

Kenya has moderate demographic and development pressure, but very low pressure from regime type or structural imbalances. Nigeria experiences significant pressure associated with demography and structural imbalances, moderate pressure from poor development and low pressure from regime type. These results suggest that some drivers of instability are likely to persist across time.

Governance in Ethiopia, for example, is projected to remain problematic in the longer term and is a relatively significant risk factor. Kenya’s risk for political instability associated with demographics and development is

expected to remain relatively high even though it is likely to decrease.

Demographic pressures have subsided in Nigeria, but only moderately. Demographic pressure in Ethiopia is projected to reduce by more than half, and pressures from structural imbalances in Nigeria are projected to decline.

### Conclusion

This report highlights patterns of continuity and change across multiple dimensions of structural risk. Understanding the distribution and evolution of structural

pressures across multiple dimensions and over long time horizons can provide policymakers with a more nuanced and more dynamic understanding of political instability risks. It can shed light on why some countries may be more likely to experience political instability events. This can help build more resilient systems and more peaceful societies.

The findings will help policymakers to understand regional and country dynamics, to mitigate risks and capitalise on opportunities for stability and development. They can serve as a foundation to inform regional or country strategies.<sup>129</sup>

The findings point to the complexity of systems in which similar drivers can impact instability risk differently

The structural pressures interact with actual political instability via the actions and relationships of specific agents. Both structures and agents can drive systems to greater instability or peace. Governance connects structure and agency, and understanding structure can support agent-based analysis.

The report underscores the varying pressures across sub-Saharan Africa and that they do not change uniformly over time. It points to the complexity of systems in which similar drivers can impact instability risk differently. In the governance model, for example, anocratic regimes are associated with higher risk for political instability than democratic regimes. Yet results from the structural imbalances model show that democracies with atypically large youth bulges are especially prone to political instability.

Pressures associated with demographics and poor development have been declining and are expected to reduce further. This important trend points to opportunities for policymakers to consolidate efforts at structural economic transformation, poverty reduction and managing demographics more efficiently.<sup>130</sup>

It remains highly uncertain how structural imbalances might affect the actual onset of political instability in sub-Saharan Africa and whether there are additional imbalances missing from this modelling and analysis.

There is increasing convergence across some key dimensions of development, but uneven progress

remains a challenge to peace and stability. Life expectancy is generally improving and is more in harmony with levels of GDP per capita. At the same time, democracies with atypically low development and capacity and/or atypically large youth bulges are vulnerable to political instability.

The uncertainty is also relatively high for the potential of horizontal inequalities to drive future political instability. Given their past and current significance, there is reason to assume they will continue to play a key role.<sup>131</sup> Their cross-cutting nature calls for policy making that is sensitive to inequalities between groups.

The pressure from anocratic regime types is intricately linked to the broader issue of inclusion and emerges as the greatest risk for political instability in sub-Saharan Africa. Policymakers should deliberately foster institutional decision making that expands inclusion across identity groups as priorities for international peacebuilding partnerships.

## Annex

### Structure and agency

In the field of conflict studies, theories that emphasise the importance of structural drivers of instability and violence coexist alongside those focusing on political agency, mostly on political leaders and their policies or, more recently, on coalitional analysis, including elite relationships.<sup>132,133</sup> The resurgent multilateral conflict prevention agenda recognises the significance of addressing structural factors alongside actors and institutions.<sup>134</sup>

The onset of specific political instability events is often the result of a complex interplay between structural drivers, specific political agency that is influenced by power dynamics, both internal and external, as well as relationships and domestic and/or external events.

Structural pressures tend to change slowly across time. They are not immediate drivers of the onset of political instability events, and they cannot be used to predict exactly when, where and how those will occur.<sup>135</sup> Structural drivers reflect broad development contexts that can either exacerbate or mitigate vulnerability to instability. These contexts and the associated pressures can be interrupted or catalysed by actors, just as exogenous processes can mitigate or exacerbate a society's vulnerability to political instability. At the same time, structural pressures have an effect on the incentives, expectations and behaviour of actors.

In other words, structural pressures provide the context in which all actions take place, or more specifically in which political agents and the relative power of elites interact. Structural pressures change dynamically across time, and agents change structure.<sup>136</sup>

Governance lies at the intersection of structure and agency. It is the articulation between state and society or ‘the arena in which states as well as economic and societal actors interact to make decisions’.<sup>137</sup> It is structural insofar as governance systems and the underlying political settlements tend to change rather slowly over time.<sup>138</sup>

## Methodology

Generally speaking there are three approaches to measuring vulnerability to political instability. The first relies on indices built using relatively simple weighting schemes and variables that are conceptually aligned with vulnerable states. The second uses statistical models to fit the historical onset of political instability to independent variables that capture potential drivers. The third is a hybrid approach that brings together quantitative methods to fit the historical onset of political instability events along with more arbitrarily weighted models.<sup>139</sup>

Index-based approaches are useful because they provide a general overview of multiple dimensions of vulnerability in a country. However, these approaches have fallen out of favour because they tend to highly correlate with levels of overall development and therefore add limited value to explaining the actual onset of political instability events. Moreover, they typically aggregate vulnerability across dimensions resulting in ranking countries as per high, medium or low vulnerability.

The probabilistic approach is more widely used although it also has limitations. These include the general problem of predicting the onset of political instability events using structural models to fit patterns of historical onset. Out-of-sample predictive accuracy is generally weak in these models. The poor predictive performance of these models is driven by the fact that 1) the onset of political instability events is only partially driven by structural factors (see Box 1 in the Introduction); and 2) the particular structural factors that drive the onset of specific political instability are highly context-specific.

The third and relatively new approach understands the drivers of political instability events as multi-dimensional and non-aggregative. It emphasises that states are vulnerable for a variety of reasons, and that it may not be useful to sum up indicators to generate one overall score that can be used to rank states across time. This approach relies on quantitative and predictive models, but encourages analysts to interpret results in non-deterministic ways.

A metaphor may be useful to illustrate the above. Understanding and measuring structural pressures and the likelihood of conflict is akin to understanding whether a rag will catch fire by measuring the amount of flammable material it contains. Structural pressures measure the quantity of flammable material.

Many of the old models measure a single amount of gas on the rag using either the index, probabilistic, or hybrid approaches. The approach used in this report measures different types of gas on the rag. This kind of analysis still requires events data or qualitative assessment to better understand the relationship between sparks and the actual lighting of the rag on fire.

## Model estimations

	Demography	Development	Governance	Structural imbalances	Horizontal inequalities
<b>Full problem set</b>					
L2.Infant mortality (log)	0.779*** (0.00)				
L2.Population (log)	0.302*** (0.00)				
L2.Population growth	0.08 (0.39)				



	Demography	Development	Governance	Structural imbalances	Horizontal inequalities
L2.Youth bulge	0.01 (0.74)				
L2.Pop, migration_annual	-0.29 (0.19)				
L2.GDP/cap (log)		-0.306*** (0.00)			
L2.GDP/cap (log) growth		-0.064 (0.64)			
L2.Life expectancy		-0.025* (0.02)			
L2.Polity IV			0.033* (0.03)		
L2.Polity_squared			-0.02155*** (0.00)		
L2.Polity v GDP/cap				0.047** (0.01)	
L2.Life expectancy v GDP per capita				-0.056*** (0.00)	
L2.Youth bulge (15-29/30+) v Polity				0.013* (0.01)	
At least one discrimination score (economic or political)					2.32*** (0.00)
# of religious groups (5% or more)					1.10 (0.00)
Constant	-8.236*** (0.00)	-2.066*** (0.00)	-2.897*** (0.00)	-4.234*** (0.00)	-4.77*** (0.00)
Observations	6229	6968	6914	5902	5459
Pseudo R2	0.09	0.05	0.04	0.04	0.04
Stataaic	940.5	1172.01	1248.92	1022.56	955.16
Statabic	980.92	1199.4	1269.44	1049.3	981.58
r2_mfadj	0.07	0.04	0.04	0.03	0.03
Log Likelihood	-464.25	-582	-621.46	-507.28	(473.58)
Chi-squared	88	56.78	55.71	39.67	35.00
prob > chi-squared	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)

## 1. Country results by model and time

	Demography		Governance		Structural imbalances		Development	
	2018	2040	2018	2040	2018	2040	2018	2040
Angola	0.046	0.034	0.079	0.079	0.031	0.02	0.022	0.016
Benin	0.023	0.013	0.013	0.004	0.028	0.018	0.022	0.016
Botswana	0.008	0.005	0.004	0.004	0.039	0.025	0.012	0.008
Burkina Faso	0.029	0.02	0.013	0.013	0.022	0.016	0.029	0.02
Burundi	0.022	0.013	0.079	0.047	0.034	0.02	0.036	0.025
Cameroon	0.029	0.022	0.079	0.079	0.02	0.013	0.025	0.018
Cape Verde	0.004	0.002	0.004	0.004	0.022	0.015	0.012	0.01
Central AfR	0.024	0.015	0.013	0.013	0.022	0.014	0.041	0.028
Chad	0.038	0.033	0.079	0.079	0.03	0.021	0.033	0.026
Comores	0.009	0.006	0.004	0.004	0.03	0.019	0.019	0.017
Congo, Democratic Republic of	0.017	0.027	0.013	0.013	0.0067	0.0064	0.027	0.023
Congo, Republic of	0.049	0.027	0.079	0.079	0.0075	0.0056	0.029	0.019
Ivory Coast	0.029	0.015	0.047	0.013	0.012	0.009	0.026	0.016
Djibouti	0.009	0.007	0.047	0.013	0.02	0.013	0.021	0.016
Equatorial Guinea	0.015	0.015	0.023	0.079	0.021	0.018	0.018	0.014
Eritrea	0.012	0.007	0.023	0.023	0.012	0.009	0.031	0.022
Ethiopia	0.034	0.017	0.079	0.079	0.018	0.013	0.026	0.016
Gabon	0.009	0.007	0.047	0.013	0.014	0.012	0.012	0.009
Gambia	0.012	0.011	0.023	0.079	0.0064	0.0055	0.028	0.023
Ghana	0.022	0.014	0.004	0.004	0.029	0.019	0.019	0.014
Guinea	0.024	0.019	0.047	0.013	0.021	0.014	0.035	0.026
Guinea-Bissau	0.013	0.01	0.013	0.013	0.025	0.017	0.031	0.022
Kenya	0.023	0.013	0.004	0.004	0.007	0.006	0.022	0.014
Lesotho	0.014	0.007	0.004	0.004	0.065	0.038	0.028	0.018
Liberia	0.016	0.013	0.013	0.013	0.022	0.015	0.032	0.025
Madagascar	0.019	0.012	0.013	0.004	0.017	0.012	0.026	0.021
Malawi	0.021	0.014	0.013	0.013	0.03	0.018	0.031	0.022
Mali	0.032	0.017	0.013	0.013	0.032	0.018	0.025	0.018
Mauritania	0.017	0.014	0.079	0.079	0.014	0.009	0.016	0.014
Mauritius	0.003	0.002	0.0039	0.0039	0.013	0.011	0.009	0.007

	Demography		Governance		Structural imbalances		Development	
	2018	2040	2018	2040	2018	2040	2018	2040
Mozambique	0.029	0.015	0.013	0.013	0.007	0.005	0.033	0.021
Namibia	0.009	0.006	0.013	0.004	0.028	0.019	0.015	0.012
Niger	0.028	0.013	0.013	0.013	0.021	0.013	0.035	0.024
Nigeria	0.065	0.053	0.013	0.013	0.037	0.024	0.023	0.018
Rwanda	0.014	0.007	0.079	0.079	0.014	0.01	0.026	0.017
São Tomé and Príncipe	0.004	0.003	0.047	0.047	0.0062	0.0064	0.017	0.014
Senegal	0.019	0.011	0.004	0.004	0.026	0.017	0.022	0.016
Seychelles	0.001	0.0006	0.0039	0.0039	0.007	0.009	0.009	0.007
Sierra Leone	0.024	0.015	0.013	0.004	0.04	0.024	0.029	0.021
Somalia	0.033	0.031	0.013	0.013	0.011	0.01	0.04	0.032
South Africa	0.019	0.016	0.004	0.004	0.038	0.027	0.016	0.012
Sudan	0.032	0.021	0.079	0.079	0.016	0.011	0.021	0.016
Sudan, South	0.023	0.019	0.047	0.047	0.02	0.014	0.043	0.03
Swaziland	0.01	0.006	0.02	0.023	0.029	0.017	0.02	0.015
Tanzania	0.027	0.018	0.047	0.013	0.017	0.013	0.023	0.015
Togo	0.018	0.012	0.079	0.079	0.017	0.011	0.029	0.02
Uganda	0.029	0.022	0.079	0.047	0.026	0.017	0.03	0.02
Zambia	0.022	0.016	0.004	0.004	0.041	0.025	0.023	0.016
Zimbabwe	0.02	0.019	0.013	0.013	0.05	0.03	0.032	0.024

## Notes

Special thanks to Christine Bell, Zachary Donnerfeld, Jakkie Cilliers, Ola Bello, Amanda Lucey, Kevin McNicholl and Sanja Badanjak for helpful comments on earlier drafts of the report. Thanks also to Drew Bowsby, Kanishka Narayan, David K Bohl and Mickey Rafa for their modelling support and to Anu Klaassens for administrative support.

- 1 See section on methodology and Annex 2 and 3 for further detail.
- 2 On the resurgent conflict prevention agenda see, for example, World Bank and United Nations (UN), *Pathways for Peace: inclusive approaches to preventing violent conflict*, March 2018, xxv.
- 3 As Putzel and Di John argue, '[L]arge-N cross-national studies of episodes of violent conflict can identify important associations between the multitude of variables related to complex processes of violence, but on their own cannot explain causal or dynamic processes.' See J Putzel and

J Di John, *Meeting the challenges of crisis states*, Crisis States Research Centre Report, London: London School of Economics and Political Science, 2012, [www.lse.ac.uk/internationalDevelopment/research/crisisStates/download/finalreport/Meeting-the-Challenges-of-Crisis-States.pdf](http://www.lse.ac.uk/internationalDevelopment/research/crisisStates/download/finalreport/Meeting-the-Challenges-of-Crisis-States.pdf).

- 4 Prevention is understood as formulated by the UN sustaining peace resolutions (UN General Assembly 2016a, UN Security Council 2016a) as 'activities aimed at preventing the outbreak, escalation, continuation, and recurrence of conflict, addressing root causes, assisting parties to conflict to end hostilities, ensuring national reconciliation, and moving towards recovery, reconstruction, and development'.
- 5 Security Council Unanimously Adopts Resolution 2282 (2016) on Review of United Nations Peacebuilding Architecture, 27 April 2016, [www.un.org/press/en/2016/sc12340.doc.htm](http://www.un.org/press/en/2016/sc12340.doc.htm); UN General Assembly Security Council, *Peacebuilding and sustaining peace: Report of the Secretary-General*, January 2018, [www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/a\\_72\\_707\\_s\\_2018\\_43.pdf](http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/a_72_707_s_2018_43.pdf).

- 6 The fact that peace agreements have become more comprehensive over time and include more provisions that address the root causes or structural drivers of organised political violence underscores the importance of structural pressures for successful transitions from war to peace.
- 7 On conflict recurrence see S Gates, HM Nygård and E Trappeniers, Conflict Recurrence, *Conflict Trends* 2, 2016, [www.prio.org/utility/DownloadFile.ashx?id=9&type=publicationfile](http://www.prio.org/utility/DownloadFile.ashx?id=9&type=publicationfile).
- 8 On quantifying the 'conflict trap', see H Hegre, HM Nygård and RF Ræder, Evaluating the scope and intensity of the conflict trap: a dynamic simulation approach, *Journal of Peace Research*, 54:2, 2017, 243-261.
- 9 MG Marshall, T Gurr and K Jagers, Polity IV Project: Political Regime Characteristics and Transitions, 1800-2015: Dataset Users' Manual, Vienna, VA, US: Center for Systemic Peace.
- 10 The Political Instability Task Force is a United States government-sponsored research project to build a database on major domestic political conflicts.
- 11 This concept does not cover the full spectrum of organised political violence in sub-Saharan Africa. Yet it is fair to assume that those forms that fall outside of this definition do correlate with the structural drivers of political instability that this report discusses.
- 12 S Straus, Wars do end! Changing patterns of political violence in sub-Saharan Africa, *African Affairs* 111:443, 2012, 179-201; C Raleigh, Political hierarchies and landscapes of conflict across Africa, *Political Geography*, 42, 2014, 92-103; R Kishi, C Raleigh and A Linke, Patterns and Trends of the Geography of Conflict, in D Backer, R Bhavnani and P Huth (eds.), *Peace and Conflict*, London: Taylor & Francis/Routledge, 2016.
- 13 Nigeria's current population is estimated at over 190 million people, Ethiopia's at over 104 million people, and Kenya's at close to 50 million.
- 14 J Cilliers and J Schünemann, The future of intrastate conflict in Africa: More violence or greater peace?, 15 May 2013, Institute for Security Studies (ISS), <https://issafrica.s3.amazonaws.com/site/uploads/Paper246.pdf>; J Cilliers and S Hedden, Africa's current and future stability, ISS, 20 November 2014, <https://issafrica.s3.amazonaws.com/site/uploads/Paper274V2.pdf>; J Cilliers and TD Sisk, Assessing long-term state fragility in Africa: Prospects for 26 'more fragile' countries, ISS, 2016, <https://issafrica.org/research/monographs/assessing-long-term-state-fragility-in-africa-prospects-for-26-more-fragile-countries>; J Cilliers, Africa's conflict burden in a global context, ISS, 22 October 2014, <https://issafrica.org/research/papers/africas-conflict-burden-in-a-global-context>.
- 15 J Cilliers, Violence in Africa: trends, drivers and prospects to 2023, Africa Report 12, August 2018, <https://issafrica.org/amp/research/africa-report/violence-in-africa-trends-drivers-and-prospects-to-2023>.
- 16 See Annex 2 on probabilistic versus index-based models, and BB Hughes, JD Moyer and T Sisk, Vulnerability to Intrastate Conflict, *Peaceworks* 72, Washington, US: United States Institute for Peace, June 2011. On forecasting violent conflict see also Pathways for Peace: Inclusive Approaches to Preventing Violent Conflict, March 2018, 24.
- 17 With the exception of the horizontal inequalities dimension, these dimensions are based on probabilistic models fit to the historical onset of political instability globally.
- 18 In line with this understanding, the study of state fragility has moved away from binary classifications of fragile versus not fragile to a more nuanced and fluid understanding of state fragility. See for example N Piffaretti, L Ralston and K Shaikh, Information note: the World Bank's harmonized list of fragile situations, Washington, DC: World Bank Group, 2014; Organisation for Economic Co-operation and Development (OECD), States of Fragility 2016: Understanding Violence, OECD Publishing, Paris, 2016; the body of work on fragility carried out at the Crisis States Research Center, the OECD, as well as more recently the German Development Institute, etc.
- 19 J Di John, Conceptualising the Causes and Consequences of Failed States: A Critical Review of the Literature, Crisis States Research Centre Working Paper 25, 2008, [www.files.ethz.ch/isn/57427/wp25.2.pdf](http://www.files.ethz.ch/isn/57427/wp25.2.pdf).
- 20 Moreover, on a vulnerability spectrum, countries do not necessarily progress towards less vulnerability over time. They can progress as well as regress or stagnate and do so across different dimensions or different parts of the territory at a different pace. See DC North et al, Limited access orders: rethinking the problems of development and violence, World Bank Policy Research Working Paper WPS 4359, 2007, [https://www.researchgate.net/publication/259552628\\_Limited\\_Access\\_Orders\\_Rethinking\\_the\\_Problems\\_of\\_Development\\_and\\_Violence](https://www.researchgate.net/publication/259552628_Limited_Access_Orders_Rethinking_the_Problems_of_Development_and_Violence).
- 21 IFs is a free, open-source model used for thinking critically about development futures. It is hosted and developed by the Frederick S Pardee Center for International Futures at the University of Denver (see <http://pardee.du.edu/understand-interconnected-world>) and was originally created by Professor Barry B Hughes.
- 22 The Current Path assumes no major paradigm shifts, policy changes or 'black swans' (extremely low-probability but high-impact events).
- 23 For a broad evaluation of measures of political instability including a distinction between index-based approaches and probabilistic approaches, see BB Hughes, JD Moyer and T Sisk, Vulnerability to Intrastate Conflict, *Peaceworks* 72, Washington, US: United States Institute for Peace, June 2011.
- 24 The PITF onset variable includes revolutions, civil war, genocides/politicides and abrupt regime change. It is a broad-based measure of onset.
- 25 See Annex 3 for model estimates.
- 26 Deaths per 1 000 births logged and normalised to each year.
- 27 SC Poe and CN Tate, Repression of Human Rights to Personal Integrity in the 1980s: A Global Analysis, *American Political Science Review*, 88:4, 1994, 853-872; N Sambanis, Do Ethnic and Nonethnic Civil Wars Have the Same Causes?, *Journal of Conflict Resolution*, 45:3, 2001, 259-282; H Hegre and N Sambanis, Sensitivity Analysis of Empirical Results on Civil War Onset, *Journal of Conflict Resolution*, 50:4, 2006, 508-35.
- 28 JA Goldstone et al, A Global Model for Forecasting Political Instability, *American Journal of Political Science*, 54:1, 2010, 190-208.
- 29 Ibid.
- 30 D Acemoglu, L Fergusson and S Johnson, Population and Civil War, MIT Department of Economics Working Paper 17-06, 31 March 2017, <https://economics.mit.edu/files/12930>.

- 31 H Urdal, Demography and Armed Conflict: Assessing the Role of Population Growth and Youth Bulges, Centre for Research on Peace and Development (CRPD) Working Paper 2, September 2011; see also G Østby, R Nordås and J Ketil Rød, Regional Inequalities and Civil Conflict in Sub-Saharan Africa, *International Studies Quarterly*, 53:2, 2009, 301-324.
- 32 J Goldstone, Population and Security: How Demographic Change can Lead to Violent Conflict, *Journal of International Affairs*, 56:1, 2002; J Goldstone et al, A Global Model for Forecasting Political Instability, *American Journal of Political Science*, 54:1, 2010, 11.
- 33 See also J Gerring et al, Electoral Democracy and Human Development, Varieties of Democracy Working Paper 2015:9, 2015, <https://ecpr.eu/Filestore/PaperProposal/0a4557bb-f171-42f3-882a-cb6ba37456c9.pdf>.
- 34 Population aged over the age of 15.
- 35 H Urdal, A Clash of Generations? Youth Bulges and Political Violence, *International Studies Quarterly*, 50:3, 2006, 607-629; RP Cincotta and E Leahy, Population Age Structure and its Relation to Civil Conflict: A Graphic Metric, Environmental Change and Security Program 2006-2007 Report 12, 55-58; RP Cincotta, The Future out to 2030: According to Demography, in S Gale and S Jackson (eds.), *The Future Can't Wait*, 2013, [www.usaid.gov/sites/default/files/documents/15396/TheFutureCantWait.pdf](http://www.usaid.gov/sites/default/files/documents/15396/TheFutureCantWait.pdf).
- 36 H Urdal, Demography and Armed Conflict: Assessing the Role of Population Growth and Youth Bulges, Centre for Research on Peace and Development (CRPD) Working Paper 2, September 2011.
- 37 Ibid.
- 38 H Urdal, A Clash of Generations? Youth Bulges and Political Violence, *International Studies Quarterly*, 50:3, 2006, 607-629; RP Cincotta, Demographic Challenges to the State, in N Tschirgi, MS Lund and F Mancini (eds.), *Security & Development: Searching for Critical Connections*, 2010, 77-98, New York, US: Lynne Rienner; H Weber, Demography and democracy: the impact of youth cohort size on democratic stability in the world, *Democratization* 20/22, 2013, 335-357.
- 39 RP Cincotta, The Future out to 2030: According to Demography, in S Gale and S Jackson (eds.), *The Future Can't Wait*, 2013, [www.usaid.gov/sites/default/files/documents/15396/TheFutureCantWait.pdf](http://www.usaid.gov/sites/default/files/documents/15396/TheFutureCantWait.pdf), 32.
- 40 A Botha and M Abdile, Radicalisation and al-Shabaab recruitment in Somalia, Paper No. 266, Pretoria, Institute for Security Studies, 2014; M Ewi and U Salifu, Money talks: a key reason youths join Boko Haram, Policy Brief 98, Pretoria, Institute for Security Studies, February 2017.
- 41 DK Bohl, BB Hughes and S Johnson, Understanding and Forecasting Demographic Risk and Benefits, report from the Frederick S Pardee Center for International Futures, Josef Korbel School of International Studies, University of Denver, September 2016, <https://docs.google.com/viewer?url=http%3A%2F%2Fpardee.du.edu%2Fsites%2Fdefault%2Ffiles%2FDemographic%2520Risk%2520Report%2520v44%2520%2528Final%2529.pdf>, 56.
- 42 RP Cincotta and E Leahy, Population Age Structure and its Relation to Civil Conflict: A Graphic Metric, Environmental Change and Security Program 2006-2007 Report 12, 55-58.
- 43 RP Cincotta, The future out to 2030: According to Demography, in S Gale and S Jackson (eds.), *The Future Can't Wait*, 2013, [www.usaid.gov/sites/default/files/documents/15396/TheFutureCantWait.pdf](http://www.usaid.gov/sites/default/files/documents/15396/TheFutureCantWait.pdf).
- 44 N Bermeo, On Democratic Backsliding, *Journal of Democracy*, 27, January 2016, 5-19.
- 45 RP Cincotta, The Future out to 2030: According to Demography, in S Gale and S Jackson (eds.), *The Future Can't Wait*, 2013, [www.usaid.gov/sites/default/files/documents/15396/TheFutureCantWait.pdf](http://www.usaid.gov/sites/default/files/documents/15396/TheFutureCantWait.pdf).
- 46 Ibid.
- 47 RP Cincotta, Minority Youth Bulges and the Future of Intrastate Conflict, October 13, 2011, [www.newsecuritybeat.org/2011/10/minority-youth-bulges-and-the-future-of-intrastate-conflict](http://www.newsecuritybeat.org/2011/10/minority-youth-bulges-and-the-future-of-intrastate-conflict).
- 48 RP Cincotta, Demographic Security Comes of Age, Wilson Center, ECSP Report, Issue 10, 2014: 26, [https://www.wilsoncenter.org/sites/default/files/ecspr10\\_C-cincotta.pdf](https://www.wilsoncenter.org/sites/default/files/ecspr10_C-cincotta.pdf).
- 49 JD Fearon and DD Laitin, Ethnicity, Insurgency, and Civil War, *American Political Science Review*, 97:1, 2003, 75-90; H Hegre and N Sambanis, Sensitivity Analysis of Empirical Results on Civil War Onset, *Journal of Conflict Resolution*, 50:4, 2006, 508-35; C Blattman and E Miguel, Civil War, *Journal of Economic Literature*, 48:1, 2010, 3-57; MD Ward, BD Greenhill and KM Bakke, The perils of policy by p-value: Predicting civil conflicts, *Journal of Peace Research* 47:4, 2010, 363-375.
- 50 P Collier and A Hoeffler, Greed and grievance in civil war, *Oxford Economic Papers*, 56:4, 2004, 563-595.
- 51 JD Fearon and DD Laitin, Ethnicity, Insurgency, and Civil War, *American Political Science Review*, 97:1, 2003, 75-90.
- 52 J Di John, Conceptualising the Causes and Consequences of Failed States: A Critical Review of the Literature, Crisis States Research Centre Working Paper 25, 2008, [www.files.ethz.ch/isn/57427/wp25.2.pdf](http://www.files.ethz.ch/isn/57427/wp25.2.pdf), 23.
- 53 See also J Gerring et al, Electoral Democracy and Human Development, Varieties of Democracy Working Paper 2015:9, 2015, <https://ecpr.eu/Filestore/PaperProposal/0a4557bb-f171-42f3-882a-cb6ba37456c9.pdf>.
- 54 J Goldstone et al, A Global Model for Forecasting Political Instability, *American Journal of Political Science*, 54:1, 2010, 11; see also H Hegre, Democracy and armed conflict, *Journal of Peace Research*, 51:2, 2014, <http://journals.sagepub.com/doi/10.1177/0022343313512852>; K Gleditsch and H Hegre, Regime Type and Political Transition in Civil War, in E Newman and K DeRouen, Jr. (eds.), *Routledge Handbook of Civil Wars*, London, UK: Routledge, 2014, 145-156.
- 55 In IFs, the original Polity scale was converted to a 20-point scale. The original Polity scale ranges from -10 (hereditary monarchy) to +10 (consolidated democracy). Countries can be grouped into three regime types: autocracies (-10 to -6), anocracies (-5 to +5) and democracies (+6 to +10). See MG Marshall, T Gurr and K Jaggers, Polity IV Project: Political Regime Characteristics and Transitions, 1800 – 2016, Dataset Users' Manual, 2017 <https://docs.google.com/viewer?url=http%3A%2F%2Fwww.systemicpeace.org%2Finscr%2Fp4manualv2016.pdf>.
- 56 Center for Systemic Peace, 2014, Polity and the Onset of Political Instability by Polity score, 1955-2006, Vienna, VA, US: Center for Systemic Peace, 52.
- 57 See [www.systemicpeace.org/polityproject.html](http://www.systemicpeace.org/polityproject.html).
- 58 J Goldstone et al, A Global Model for Forecasting Political Instability, *American Journal of Political Science*, 54:1, 2010.



- 59 Polity IV Project: Political Regime Characteristics and Transitions, 1800-2011, 2011, [www.systemicpeace.org/polity/polity4.htm](http://www.systemicpeace.org/polity/polity4.htm); MG Marshall and BR Cole, *Global Report 2011: Conflict, Governance and State Fragility*, 2011, [www.researchgate.net/publication/207258403\\_Global\\_Report\\_2009\\_State\\_Fragility\\_Center\\_for\\_Systemic\\_Peace\\_Center\\_for\\_Global\\_Policy](http://www.researchgate.net/publication/207258403_Global_Report_2009_State_Fragility_Center_for_Systemic_Peace_Center_for_Global_Policy).
- 60 MW Svobik, *The Politics of Authoritarian Rule*, Cambridge, UK: Cambridge University Press, 2012; Bueno de Mesquita et al, *The Logic of Political Survival*, Cambridge, US: MIT Press, 2003; S Krishnarajan, J Møller, LL Rørbæk and S-E Skaaning, Democracy, Democratization, and Civil War, in D Backer, R Bhavnani and P Huth (eds.), *Peace and Conflict*, New York, US: Routledge, 2017, 68-76.
- 61 Political settlements are broadly understood as bargaining outcomes among contending elites that reflect the balance or distribution of power in a state. This definition draws on J Putzel and J Di John, *Political Settlements*, Issues paper, Governance and Social Development Resource Center, 2009, <http://www.gsdr.org/docs/open/EIRS7.pdf> and MH Khan, *State Failure in Weak States: A Critique of New Institutional Explanations*, in J Harriss, J Hunter and C Lewis (eds.) *The New Institutional Economics and Third World Development*, London: Routledge, 1995.
- 62 T Kelsall, *Thinking and working with political settlements*, ODI briefing, 2016, [www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/10185.pdf](http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/10185.pdf), 5. The other types of political settlements that Kelsall delineates are: exclusive, spoils-driven, impersonal settlements; exclusive, coordinated, personalised settlements; and inclusive, coordinated, impersonal settlements.
- 63 Ibid.
- 64 The model further included the level of infant mortality relative to a global annual average, the presence of state-led discrimination, and an indicator measuring whether four or more neighbouring states were experiencing civil war.
- 65 MG Marshall, T Gurr and K Jagers, *Polity IV Project: Political Regime Characteristics and Transitions, 1800-2015: Dataset Users' Manual*, Vienna, VA, US: Center for Systemic Peace.
- 66 HB Chenery, *Patterns of Industrial Growth*, *American Economic Review*, vol 50, 1960, 624-54; HB Chenery (ed.), *Studies in Development Planning*, Cambridge, Mass., Harvard University Press, 1971.
- 67 BB Hughes et al, *Strengthening Governance Globally: Patterns of Potential Human Progress Volume 5*, Oxford, UK: Oxford University Press, 2015.
- 68 Ibid.
- 69 Ibid.
- 70 Specifically, this is: 1) the residual of a pooled linear relationship between a continuous measure of regime type (Polity IV) and GDP per capita at PPP, 2) the residual of a pooled linear relationship between life expectancy and GDP per capita at PPP and 3) the residual of a pooled relationship between youth bulge and a continuous measure of regime type.
- 71 J Goldstone et al, A global model for forecasting political instability, *American Journal of Political Science*, 54:1, 2010, 11.
- 72 See F Stewart, *Crisis Prevention: Tackling Horizontal Inequalities*, *Oxford Development Studies*, 28:3, 2000, 245-62; F Stewart, *Horizontal Inequalities: A Neglected Dimension of Development*, QEH Working Paper Series 81, 2002, [www.qeh.ox.ac.uk/sites/www.odid.ox.ac.uk/files/www3\\_docs/qehwps81.pdf](http://www.qeh.ox.ac.uk/sites/www.odid.ox.ac.uk/files/www3_docs/qehwps81.pdf); F Stewart, *Horizontal inequalities as a cause of conflict*, 2009, [www.bradford.ac.uk/social-sciences/media/socialsciences/BDLStewart.pdf](http://www.bradford.ac.uk/social-sciences/media/socialsciences/BDLStewart.pdf); H Buhaug, LE Cederman and KS Gleditsch, *Square Pegs in Round Holes: Inequalities, Grievances, and Civil War*, *International Studies Quarterly*, 58:2, 2014, 418-31; A Alesina, S Michalopoulos and E Papaioannou, *Ethnic Inequality*, *Journal of Political Economy*, 124:2, 2016, 428-88; J Montalvo and M Reynal-Querol, *Discrete Polarisation with an Application to the Determinants of Genocides*, *Economic Journal*, 118: 533, 2008, 1835-65; J Esteban, L Mayoral and D Ray, *Ethnicity and Conflict: An Empirical Study*, *American Economic Review*, 102:4, 2012, 1310-42; see also World Bank and UN, *Pathways for Peace: Inclusive Approaches to Preventing Violent Conflict*, March 2018, based on H Nygård et al, *Inequality and Armed Conflict: Evidence and Data*, 2017, [www.prio.org/utility/DownloadFile.ashx?id=954&type=publicationfile](http://www.prio.org/utility/DownloadFile.ashx?id=954&type=publicationfile); A Langer and F Stewart, *Regional imbalances, horizontal inequalities, and violent conflicts : insights from four West African countries*, Washington, D.C.: World Bank Group, 2015.
- 73 World Bank and UN, *Pathways for Peace: Inclusive Approaches to Preventing Violent Conflict*, March 2018.
- 74 A Langer and F Stewart, *Regional imbalances, horizontal inequalities, and violent conflicts : insights from four West African countries*, Washington, D.C.: World Bank Group, 2015, 4.
- 75 A Langer and F Stewart, *Regional imbalances, horizontal inequalities, and violent conflicts : insights from four West African countries*, Washington, D.C.: World Bank Group, 2015, 4.
- 76 The Minorities at Risk Project is a university-based research project that monitors and analyses the status and conflicts of politically active communal groups in all countries with a current population of at least 500 000, [www.mar.umd.edu/](http://www.mar.umd.edu/).
- 77 See for example A Marc, N Verjee and S Mogaka, *The Challenge of Stability and Security in West Africa*, Africa Development Forum series. Washington, DC: World Bank; Paris: Agence Française de Développement, 2015.
- 78 G Østby, R Nordås and J Ketil Rød, *Regional Inequalities and Civil Conflict in Sub-Saharan Africa*, *International Studies Quarterly*, 53:2, 2009, 301-324.
- 79 H Fjelde and G Østby, *Socioeconomic Inequality and Communal Conflict: A Disaggregated Analysis of Sub-Saharan Africa, 1990-2008*, *International Interactions*, 40:5, 2014, 737-762.
- 80 GO Aigbe and AE Zannu, *Differentials in Infant and Child Mortality Rates in Nigeria: Evidence from Six Geopolitical Zones*, *International Journal of Humanities and Social Science*, 2:16, 2012, 206-214.
- 81 B Moore, *Social Origins of Democracy and Dictatorship: Lord and Peasant in the Making of the Modern World*, Boston, US: Beacon Press, 1966; C Tilly, *Coercion, Capital and European States: AD 990-1992*, Oxford, UK: Blackwell, 1990; M Mann, *The Sources of Social Power, Volume 2: The Rise of Classes and Nation States, 1760-1914*, Cambridge, UK: Cambridge University Press, 1993; C Cramer, *Civil War is Not a Stupid Thing*, London, UK: Hearst & Co, 2006. All cited in J Di John, *Conceptualising the Causes and Consequences of Failed*



- States: A Critical Review of the Literature, Crisis States Research Centre Working Paper 25, 2008, [www.files.ethz.ch/isn/57427/wp25.2.pdf](http://www.files.ethz.ch/isn/57427/wp25.2.pdf), 2, 10.
- 82 S Straus, Wars do end! Changing patterns of political violence in sub-Saharan Africa, *African Affairs* 111:443, 2012, 179-201.
- 83 Ibid.; see also MG Marshall and BR Cole, Global Report 2009: Conflict, Governance, and State Fragility, 2009, [www.systemicpeace.org/vlibrary/GlobalReport2009.pdf](http://www.systemicpeace.org/vlibrary/GlobalReport2009.pdf), 12; H Hegre, L Hultman and HM Nygård, Peacekeeping works: Evaluating the effectiveness of UN peacekeeping operations, *Conflict Trends* 6, 2017, [www.prio.org/utility/DownloadFile.ashx?id=1526&type=publicationfile](http://www.prio.org/utility/DownloadFile.ashx?id=1526&type=publicationfile).
- 84 S Gates et al, Trends in Armed Conflict, *Conflict Trends* 1, 2016, [www.prio.org/utility/DownloadFile.ashx?id=8&type=publicationfile](http://www.prio.org/utility/DownloadFile.ashx?id=8&type=publicationfile).
- 85 As per Uppsala Conflict Data Program (UCDP) definition: A state-based armed conflict is a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in one calendar year. A non-state conflict is defined as the use of armed force between two organised armed groups, neither of which is the government of a state, which results in at least 25 battle-related deaths in a year. One-sided violence is defined as the use of armed force by the government of a state or by a formally organised group against civilians that results in at least 25 deaths in a year. See [www.pcr.uu.se/research/ucdp/definitions/](http://www.pcr.uu.se/research/ucdp/definitions/).
- 86 PD Williams, Continuity and Change in War and Conflict in Africa, *PRISM*, 6:4, 2017; S Straus, Wars do end! Changing patterns of political violence in sub-Saharan Africa, *African Affairs* 111:443, 2012, 179-201.
- 87 S Straus, Wars do end! Changing patterns of political violence in sub-Saharan Africa, *African Affairs* 111:443, 2012, 179-201.
- 88 Ibid.; C Raleigh, Political hierarchies and landscapes of conflict across Africa, *Political Geography*, 42, 2014, 92-103; R Kishi, C Raleigh and A Linke, Patterns and Trends of the Geography of Conflict, in D Backer, R Bhavnani and P Huth (eds.), *Peace and Conflict*, London: Taylor & Francis/Routledge, 2016.
- 89 S Straus, Wars do end! Changing patterns of political violence in sub-Saharan Africa, *African Affairs*, 111:443, 2012, 19-201; J Cilliers and J Schünemann, The future of intrastate conflict in Africa: More violence or greater peace?, ISS, 15 May 2013, <https://issafrica.org/research/papers/the-future-of-intrastate-conflict-in-africa-more-violence-or-greater-peace>; H Hegre and HM Nygård, Peace on Earth? The Future of Internal Armed Conflict, *Conflict Trends* 1, 2014, [www.prio.org/utility/DownloadFile.ashx?id=123&type=publicationfile](http://www.prio.org/utility/DownloadFile.ashx?id=123&type=publicationfile); J Cilliers and S Hedden, Africa's current and future stability, ISS, 20 November 2014, <https://issafrica.s3.amazonaws.com/site/uploads/Paper274V2.pdf>; J Cilliers, Violence in Africa: trends, drivers and prospects to 2023, Africa Report 12, August 2018, <https://issafrica.org/amp/research/africa-report/violence-in-africa-trends-drivers-and-prospects-to-2023>.
- 90 S Straus, Wars do end! Changing patterns of political violence in sub-Saharan Africa, *African Affairs* 111:443, 2012, 179-201.
- 91 In this particular order and based on UCDP Georeferenced Events Dataset, Global v. 17.2.
- 92 UCDP/PRIO Armed Conflict Dataset v. 17.2.
- 93 E Melander, T Pettersson and L Themnér, Organized violence, 1989-2015, *Journal of Peace Research*, 53:5, 2016, 727-742.
- 94 Ibid.
- 95 Armed Conflict Location & Event Data Project (ACLED), ACLED Codebook, 2017, v. 8. According to Raleigh, 'Political militias operate as "private armies" for political elites broadly including regimes (i.e. Janjaweed in Sudan), members of governments (i.e. Mungiki in Kenya); and political opponents (i.e. Boko Haram in Nigeria)'. See C Raleigh, Political hierarchies and landscapes of conflict across Africa, *Political Geography*, 42, 2014, 92-103.
- 96 S Straus, Wars do end! Changing patterns of political violence in sub-Saharan Africa, *African Affairs* 111:443, 2012, 179-201; See also C Raleigh, Political hierarchies and landscapes of conflict across Africa, *Political Geography*, 42, 2014, 92-103.
- 97 S Straus, Wars do end! Changing patterns of political violence in sub-Saharan Africa, *African Affairs* 111:443, 2012, 179-201; H Fjelde and K Högglund, Electoral Institutions and Electoral Violence in Sub-Saharan Africa, *British Journal of Political Science*, 46, 2014, 297-320, <http://uu.diva-portal.org/smash/get/diva2:915991/FULLTEXT01.pdf>.
- 98 E Melander, T Pettersson and L Themnér, Organized violence, 1989-2015, *Journal of Peace Research*, 53:5, 2016, 713.
- 99 ACLED, 2017, ACLED Codebook, 2017, v. 8.
- 100 Ibid.
- 101 In 2016, riots and protests accounted for almost 40% of total conflict events in Africa, up 10% from the previous year. ACLED, 2017, ACLED Codebook, 2017, v. 8.
- 102 C Raleigh, Urban Violence Patterns Across African States, *International Studies Review*, 17:1, 2015, 90-106.
- 103 ACLED defines protests as non-violent group public demonstrations, ACLED, 2017, ACLED Codebook, 2017, v. 8.
- 104 PD Williams, Continuity and Change in War and Conflict in Africa, *PRISM*, 6:4, 2017.
- 105 Open access orders, on the other hand, are 'sustained by institutions that support open access and competition: political competition to maintain open access in the economy and economic competition to maintain open access in the polity'. In open access orders, 'control over organized violence is consolidated in military and police forces, and other organizations are not allowed to use violence', and the 'political system controls the organizations – military and police – that have a monopoly on the legitimate use of violence'. See DC North et al, Limited Access Orders: Rethinking the Problems of Development and Violence, World Bank Policy Research Working Paper WPS 4359, 2007, [https://www.ioea.eu/pdf/textes\\_2009/NorthWallisWebbWeingast\\_LimitedAccessOrders.pdf](https://www.ioea.eu/pdf/textes_2009/NorthWallisWebbWeingast_LimitedAccessOrders.pdf).
- 106 Based on North et al's framework, all countries in sub-Saharan Africa are limited access orders, as they all fall into the categories of low- and middle-income countries. (Although they display income levels that vary greatly.) They distinguish three basic types: fragile, such as the DRC; basic – i.e. one-party states in sub-Saharan Africa, or states characterised by competitive clientelism, such as Zambia; and mature, such as South Africa. See DC North et al, Limited Access Orders: Rethinking the Problems of Development and Violence, World Bank Policy Research Working Paper WPS 4359, 2007, [https://www.ioea.eu/pdf/textes\\_2009/NorthWallisWebbWeingast\\_LimitedAccessOrders.pdf](https://www.ioea.eu/pdf/textes_2009/NorthWallisWebbWeingast_LimitedAccessOrders.pdf), 7-8.

- 107 Ibid.
- 108 Ibid.
- 109 Ibid.
- 110 See S Lindemann, Exclusionary Elite Bargains and Civil War Onset: The Case of Uganda, Development as State-making Working Paper 76, August 2010, <https://assets.publishing.service.gov.uk/media/57a08b2a40f0b649740009ea/WP76.2.pdf>; S Lindemann, Inclusive Elite Bargains and Civil War Avoidance: The Case of Zambia, Development as State-making Working Paper 77, August 2010, <http://www.lse.ac.uk/international-development/Assets/Documents/PDFs/csdc-working-papers-phase-two/wp77.2-inclusive-elite-bargains-civil-war-avoidance.pdf>.
- 111 T Kelsall, Thinking and working with political settlements, ODI briefing, 2016, [www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/10185.pdf](http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/10185.pdf), 3.
- 112 The demographic transition is the process by which a population shifts from high to low rates of birth and death.
- 113 RP Cincotta, R Engelman and D Anastasion, The Security Demographic: Population and Civil Conflict After the Cold War, Population Action International, 17 December 2003.
- 114 By 2019, 2021 and 2024 respectively.
- 115 World Bank, Global Economic Prospects: Weak Investment in Uncertain Times, January 2017, 165, <http://documents.worldbank.org/curated/en/256151484320513668/Global-economic-prospects-weak-investment-in-uncertain-times>.
- 116 Ibid.
- 117 A Hirsch, Africa is poised for sustainable growth and development. But there are risks, *The Conversation*, 8 January 2017, <https://theconversation.com/africa-is-poised-for-sustainable-growth-and-development-but-there-are-risks-70869>.
- 118 International Monetary Fund, Regional Economic Outlook: Sub-Saharan Africa. Domestic Revenue Mobilization and Private Investment, 2018.
- 119 As per the World Bank categories.
- 120 Ibid.
- 121 Freedom House is a non-governmental research and advocacy organisation that focuses on democracy, political freedom and human rights, see <https://freedomhouse.org>.
- 122 J Temil, Democratic Governance in Africa: Three Key Trends, Freedom House blog, 10 May 2018, <https://freedomhouse.org/blog/democratic-governance-africa-three-key-trends>.
- 123 Z Donnenfeld and F Akum, Gathering storm clouds: Political and economic uncertainty in Central Africa, ISS, 30 November 2017, <https://issafrica.s3.amazonaws.com/site/uploads/car11.pdf>, 14.
- 124 See also H Fjelde and K Hoglund, Electoral institutions and electoral violence in sub-Saharan Africa, *British Journal of Political Science*, 46, 2014, 297–320, <http://uu.diva-portal.org/smash/get/diva2:915991/FULLTEXT01.pdf>.
- 125 J Temil, Democratic Governance in Africa: Three Key Trends, Freedom House blog, 10 May 2018, <https://freedomhouse.org/blog/democratic-governance-africa-three-key-trends>.
- 126 World Bank and UN, Pathways for Peace: Inclusive Approaches to Preventing Violent Conflict, March 2018; A Langer and F Stewart, Regional Imbalances, Horizontal Inequalities, and Violent Conflicts: Insights from Four West African Countries, Washington, D.C.: World Bank Group, 2015, 4.
- 127 A Langer and F Stewart, Regional Imbalances, Horizontal Inequalities, and Violent Conflicts: Insights from Four West African Countries, Washington, D.C.: World Bank Group, 2015, 62.
- 128 Ibid., 7.
- 129 See the portfolio of country and regional studies undertaken by the African Futures and Innovation Programme at the ISS, including on Ethiopia, Mozambique, Namibia, Kenya, South Africa, Nigeria, Central Africa, Southern Africa, etc. that are available on the ISS website: <https://issafrica.org/topics-regions/search?topics=218&regions=>.
- 130 J Cilliers, Made in Africa: manufacturing and the fourth industrial revolution, ISS, 2 May 2018, <https://issafrica.org/research/africa-report/made-in-africa-manufacturing-and-the-fourth-industrial-revolution>; J Cilliers; J Bello-Schünemann, J Cilliers, Zachary Donnenfeld, Ciara Aucoin and Alex Porter, African futures: key trends to 2035, ISS Policy Brief, 1 September 2017, <https://issafrica.org/research/policy-brief/african-futures-key-trends-to-2035>; J Cilliers, Getting to Africa's demographic dividend, ISS Africa Report, 31 August 2018, <https://issafrica.org/research/africa-report/getting-to-africas-demographic-dividend>.
- 131 More recent literature points to the benefits of analysing sub-national data on horizontal inequalities and exploring potential correlations with spatially disaggregated conflict data.
- 132 J Putzel and J Di John, Meeting the Challenges of Crisis States, Crisis States Research Centre Report, London: London School of Economics and Political Science, 2012, [www.lse.ac.uk/internationalDevelopment/research/crisisStates/download/finalreport/Meeting-the-Challenges-of-Crisis-States.pdf](http://www.lse.ac.uk/internationalDevelopment/research/crisisStates/download/finalreport/Meeting-the-Challenges-of-Crisis-States.pdf).
- 133 These theories are complementary, and they all make important contributions to a highly complex field of research.
- 134 Ibid.
- 135 As Putzel and Di John argue, '[L]arge-N cross-national studies of episodes of violent conflict can identify important associations between the multitude of variables related to complex processes of violence, but on their own cannot explain causal or dynamic processes.' See J Putzel and J Di John, Meeting the Challenges of Crisis States, Crisis States Research Centre Report, London: London School of Economics and Political Science, 2012, [www.lse.ac.uk/internationalDevelopment/research/crisisStates/download/finalreport/Meeting-the-Challenges-of-Crisis-States.pdf](http://www.lse.ac.uk/internationalDevelopment/research/crisisStates/download/finalreport/Meeting-the-Challenges-of-Crisis-States.pdf).
- 136 A Wendt, The agent-structure problem in international relations theory, *International Organization*, 41:3, 1987, 335-370.
- 137 G Hyden et al, Governance assessments for local stakeholders: What the World Governance Assessment offers, Overseas Development Institute (ODI) Working Paper 287, ODI and Dag Hammarskjöld Foundation, 2008, [www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/822.pdf](http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/822.pdf), 3.
- 138 T Kelsall, Thinking and working with political settlements, ODI briefing, 2016, [www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/10185.pdf](http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/10185.pdf), 3.
- 139 BB Hughes, JD Moyer and T Sisk, Vulnerability to Intrastate Conflict, *Peaceworks* 72, Washington, US: United States Institute for Peace, June 2011.

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### Acknowledgements

This report was produced for the Political Settlements Research Programme, funded by UK Aid from the UK Department for International Development (DFID). The views expressed and information contained in it are not necessarily those of, or endorsed by, DFID, which can accept no responsibility for such views or information or for any reliance placed on them.

The ISS is grateful for support from the ISS Partnership Forum: the European Union and the governments of Australia, Canada, Denmark, Finland, Ireland, the Netherlands, Norway, Sweden and the United States. The Frederick S Pardee Center is grateful for model construction support from the Minerva Initiative.

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ISSN 1026-0404

