

Macroeconomic and Developmental Impacts of Selected BIG Pathways

Asghar Adelzadeh, Ph.D.

Director and Chief Economic Modeller

Applied Development Research Solutions (ADRS)

asghar@adrs-global.com

Presentation to:

SPI Symposium

Johannesburg, South Africa

9 November 2023

Outline

- Aim of the project
- Introduction to the ADRS model used for the project
- Base (Business-As-Usual) scenario
- BIG pathways' shared conditions and assumptions
- Model results for BIG pathways
- Conclusions

Aim

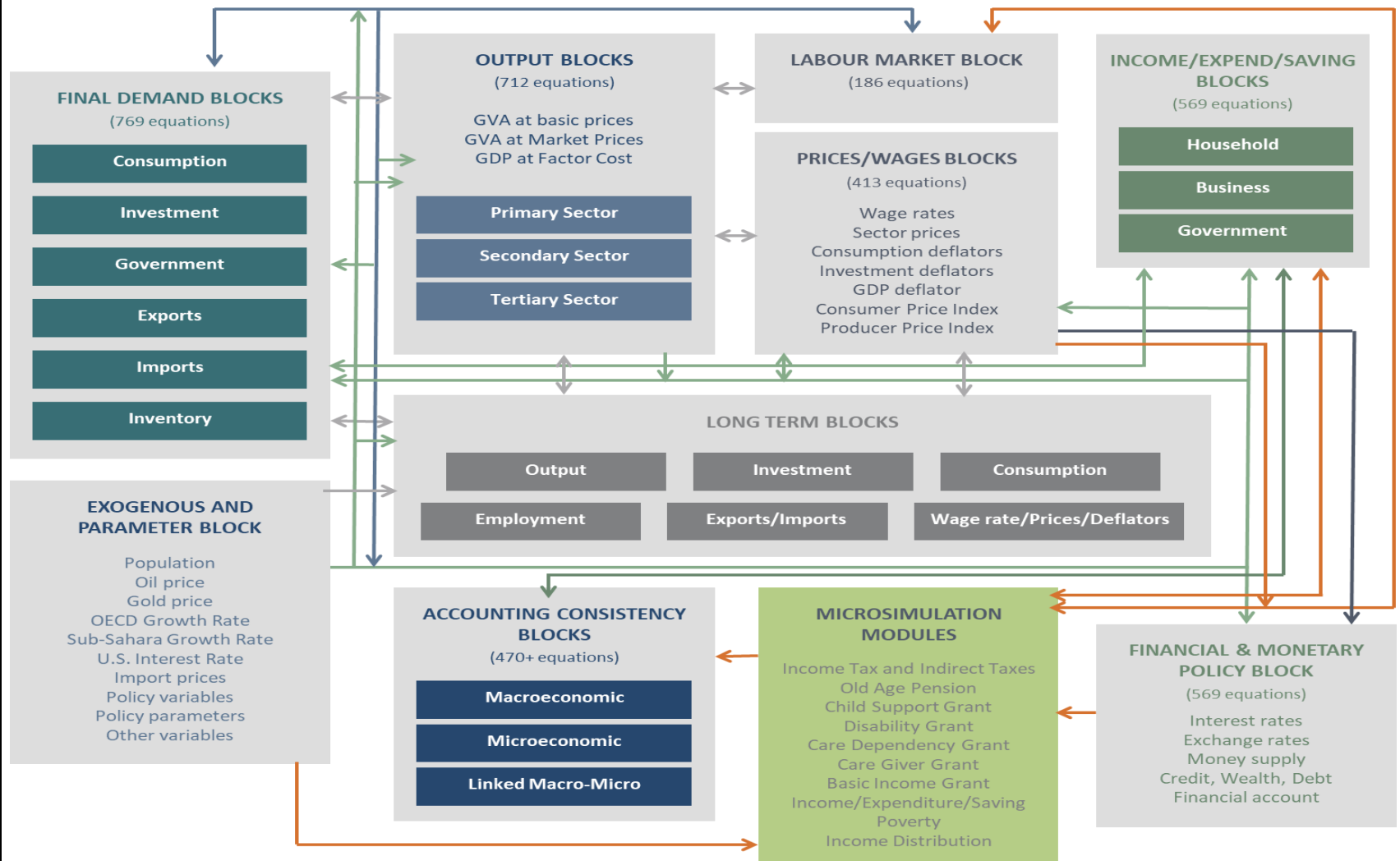
The aim of this project was to use the ADRS linked macro-micro model of South Africa to quantify macroeconomic and development impacts of selected BIG scenarios and their implementation pathways.

The BIG pathways that were used in the study were jointly developed by ADRS and IEJ

ADRS' Dynamically Integrated Macro-Micro Simulation Model of South Africa (DIMMSIM)

- ADRS has built a suite of SA models over the last 20 years. The model used for this project is called the Dynamically Integrated Macro and Micro Simulation Model (DIMMSIM™).
- DIMMSIM integrates ADRS' Macroeconometric Model of South Africa (MEMSA) with its household microsimulation model of the country (SATTSIM) to capture the dynamic two-way interactions between the macroeconomic performance and the poverty and income distribution at household level.
- DIMMSIM has a broad heterodox theoretical foundation and utilizes modern time series estimation methods for building the model's system of equations.
- DIMMSIM's microsimulation component includes three government's taxation policies (i.e., personal income tax, excise tax, and value added tax) and six transfer programmes (i.e., old age grant, child support, disability grant, care dependency grant, care giver support, and the basic income grant).
- Over the past 15 years, DIMMSIM has been used for the quantification of impact of scenarios related to infrastructure investment, social security, macroeconomic policy, Indlulamithi, National Minimum Wage, COVID-19 and other issues.
- Currently the Economic Modelling Academy (EMA) uses DIMMSIM in its training courses during which students receive access to the model's user-friendly web-platform and learn how the model is built and how to use it to design scenarios and conduct impact analyses and forecasting.
- For a more detailed description of DIMMSIM™, please download "A Technical Introduction to DIMMSIM" from the ADRS website under Resources tab.

Figure 1: ADRS Dynamically Integrated Macro-Micro Simulation Model of South Africa (DIMMSIM)



Source: Adalzadeh, A. Applied Development Research Solutions (ADRS). www.adrs-global.com

The Base (Business As Usual) Scenario

The Base Scenario: Macroeconomic and Social Policy Assumptions

- This scenario plays an important role in our analysis:
 - It captures the main features of the recent past and current economic policy.
 - It provides the likely outlook for the economy without a BIG for the rest of this decade.
 - It enables us to compare and contrast the likely macroeconomic and development outcomes of BIG scenarios with the likely outlook for the economy without a BIG.
- Key features of the scenario includes:
 - Macroeconomic Policy:
 - Fiscal policy limits annual increases in general government investment to 6.5% and general government final consumption expenditure to 5%.
 - Investment by public corporations increases annually by 6.5%.
 - Monetary policy continues to strictly adhere to inflation targeting.
 - Social Policy:
 - The social security programme remains unchanged, with grant amounts annually adjusted for inflation.
 - The implementation of Phase 4 of EPWP continues without major increases to the number of job opportunities and/or remuneration rates.
 - No new major social policy measures are introduced during the next 8 years.
 - No changes to current direct and indirect tax policies are made during the next 8 years.

Base Scenario Results (2023-2030)

DIMMSIM projections of key indicators for the Base Scenario include:

Macroeconomic Indicators (2023-2030)	Baseline
GDP Growth (Ave)	2.2
Gross Domestic Expenditure (CAGR, Real)	2.2
GDP Per Capita (CAGR, Real)	0.8
Aggregate Supply (CAGR, Real)	2.3
Aggregate Demand (CAGR, Real)	2.4
Unemployment Rate (Ave)	32.1
CPI (Ave)	3.8
Interest Rate (Ave)	6.9
Current Account-GDP Ratio (Ave)	-4.3
Fiscal Indicators (2023-2030)	
Total Benefit Paid-GDP Ratio (Annual Ave)	4.9
Taxes on Income and Wealth-GDP Ratio (Annual Ave)	15.7
Government Expenditure-GDP Ratio (Annual Ave)	31.8
Government Revenue-GDP Ratio (Annual Ave)	28.8
Deficit GDP Ratio (Annual Ave)	-3.0
Debt GDP Ratio (Annual Ave)	74.2

Household Impact (2023-2030)	Baseline
Poverty Rate (SA) (% change, 2022-2030)	-21.8
PR - Male	-22.6
PR - Female	-21.1
PR - African	-20.8
PR - Coloured	-43.6
PR - Q1	-15.2
PR-Q2	-16.6
Multi Dimensional Poverty	0.0
Poverty Gap (SA) (% change, 2022-2030)	-25.1
PR - Male	-23.5
PR - Female	-26.6
PR - African	-24.1
PR - Coloured	-45.7
PR - Q1	-20.5
PR-Q2	-22.9
Gini SA (% change) (% change, 2022-2030)	-9.8
Gini - Male	-9.7
Gini - Female	-8.8
Gini - African	-9.8
Gini - Coloured	-10.1

BIG Pathways' Shared Conditions and Assumptions

BIG Pathway Scenarios

- The ADRS model was used to simulate the impact of three BIG Pathway Scenarios with the following eligibility and entitlement conditions.
- Eligibility Requirements:
 - Should be 18 to 59 years old
 - Should not receive any other grants
 - Should pass the specified individual means test
- Entitlement Conditions:
 - The three BIG scenarios differ in terms of their monthly payments to eligible individuals.
 - The grant amounts will be equivalent to the SRD amount, Stats SA's Food Poverty Line (FPL), the Lower Bound Poverty Line (LBPL), or the Upper Bound Poverty Line (UBPL).
 - The grant amount is annually adjusted by 5%
 - All current grants also annually adjusted to inflation.
 - The SRD grant adjustment for inflation begins after 2023.
 - The new grant will go into effect in 2023
- Take up rate assumption:
 - It is assumed that the take up rate for the new grant will be 60% during the first year. Thereafter, the rate will increase annually by three percentage points until it reaches a maximum of 81% by 2030.

Poverty Line (Grant Amount) Assumptions (2020-2030)

- The Stats SA’s monthly poverty line values for 2022 were the last actual values that we had. To estimate the likely values of the three poverty lines over the next five years, the CAGR of each poverty line was calculated, using Stats SA data. As a result, for the period after 2022, each monthly poverty line has been annually updated by 5%.
- DIMMSIM uses the annual value of the Upper Bound Poverty Line for its annual projections of income poverty and the poverty gap.
- Projections of the three poverty lines have also been used in the model for the specification of the annual grant amount for the BIG Pathway Scenarios.

Poverty Line/Grant Amounts Over Time (Rand, Monthly)									
	2022	2023	2024	2025	2026	2027	2028	2029	2030
Social Relief of Distress (SRD)	350	350	368	386	405	425	447	469	492
Food Poverty Line (FPL)	663	696	731	768	806	846	888	933	980
Lower Bound Poverty Line (LBPL)	945	992	1 042	1 094	1 149	1 206	1 266	1 330	1 396
Upper Bound Poverty Line (UBPL)	1 417	1 488	1 562	1 640	1 722	1 808	1 899	1 994	2 094

Model's Wealth Tax and Social Security Tax Modules

For the examination of financially feasible BIG pathways, a Wealth Tax and a Social Security Tax module were added to the model. Their key features include:

- **Wealth Tax Module of DIMMSIM:**
 - South Africa's high concentration of wealth is well known. It is widely recognized that the share of wealth held by the top 10% is between 85% and 90% (Chatterjee, A., L. Czajka, and A. Gethin, 2021).
 - The DIMMSIM Wealth Tax module is linked to both macroeconomic and microsimulation parts of the model. It uses the model's annual projection of household net worth to establish the taxable portion of wealth (e.g., 50%). It then calculates the annual Total Wealth Tax by applying a tax rate (e.g., 1%) to the taxable portion of wealth. Finally, the microsimulation part of the model tests and allocates the annual Total Wealth Tax among the adult taxpayers in the top quintile.

- **Social Security Tax Module of DIMMSIM:**
 - DIMMSIM's Social Security Tax module applies a flat social security tax rate (e.g., 3%) to wages up to a taxable maximum (e.g., R2.5 million). This is a simple approach to a Social Security Tax programme that can be further developed to include additional options.
 - DIMMSIM's Social Security Tax is built as a module of its microsimulation component. For each year of the forecast period, the model uses its detailed database of individuals' labour market participation and income to test the eligibility of individuals and to calculate their social security amounts.
 - Social Security Tax is normally deducted from employee earnings by employers who pay the final amount to the government for the Social Security programme.

Model Results for BIG Pathways

Macroeconomic Dynamics of BIG Scenarios

In DIMMSIM, the initial impact of a BIG policy on government expenditure and household income will reverberate throughout the economy:

- a) The increase in household income will stimulate production response from economic sectors that in turn lead to higher investment, employment and income.
- b) Higher GDE in the economy will especially generate higher VAT (Indirect Tax) revenue that can help finance the new grant.
- c) The expected stimulus effect of a BIG programme (e.g., higher average growth of GDP and GDE) will benefit the private sector and their household income.
- d) The BIG scenarios therefore can have positive aggregate demand and aggregate supply impacts that the model is well suited to quantify.
- e) Significant transfers to poor households will help reduce the poverty rate and the depth of poverty.
- f) As the bottom quintiles become the main beneficiaries of a BIG programme, income distribution is expected to improve.

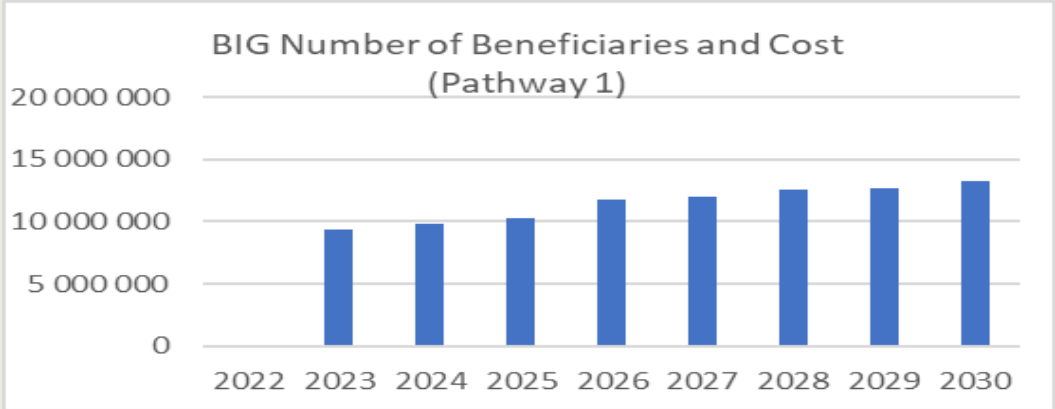
These dynamic economic interactions are captured and quantified through the 3208 equations of the model and its links to a full microsimulation model.

Scenario 1: Low Ambition BIG Pathway

- Basic Features of the Scenario:

Scenario 1: Low Ambition BIG Scenario				
	2023-2024	2025	2026-2027	2028-2030
Means Test	FPL	LBPL	UBPL	UBPL
Grant Amount	SRD	SRD	FPL	LBPL

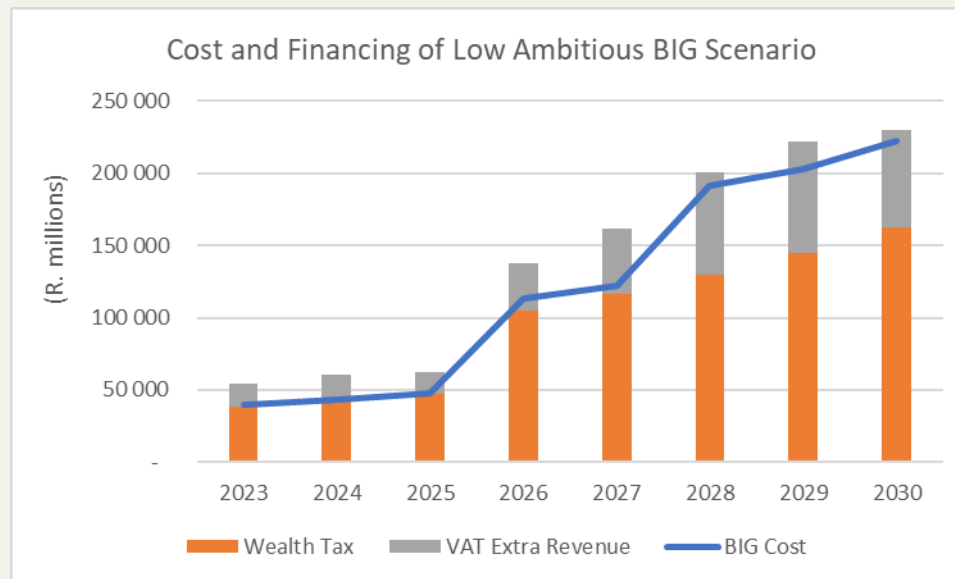
- Beneficiaries of the Scenario are projected to gradually increase from 9.4 million in 2023 to 13.3 million by 2030, taking in to account the 60-80 percent take up rate.



Scenario 1: Low Ambition BIG Pathway

Cost and Finance

- Cost and Financing of the Scenario: The financing needs of this scenario can be met through:
 - Introduction of a Wealth Tax at 0.5% between 2023 to 2025 and 1.0% between 2026 and 2030
 - Increase in VAT revenue enabled by the scenario's positive impact on the Gross Domestic Expenditure (GDE)



Scenario 1: Low Ambition BIG Pathway

Macroeconomic Impact

Relative to the Base Scenario results, the Low Ambition BIG Scenario will be responsible for:

- Increase in average real GDP growth by 0.6 percentage points between 2023 and 2030.
- 0.5 percentage point increase in average annual real per capita GDP during the next 8 years.
- Stimulating both Aggregate Demand (AD) and Aggregate Supply (AS), thereby producing balanced growth.
- 2.4 percentage points lower average annual unemployment rate during the next 8 years.

Macroeconomic Indicators	Baseline	BIG PATHWAY:
		Low Ambition
GDP Growth (Ave)	2.2	2.8
Gross Domestic Expenditure (CAGR, Real)	2.2	2.5
GDP Per Capita (CAGR, Real)	0.8	1.3
Aggregate Supply (CAGR, Real)	2.3	2.6
Aggregate Demand (CAGR, Real)	2.4	2.6
Unemployment Rate (Ave)	32.1	29.7
CPI (Ave)	3.8	3.6
Interest Rate (Ave)	6.9	6.9
Current Account-GDP Ratio (Ave)	-4.3	-4.3

Scenario 1: Low Ambition BIG Pathway

Fiscal Impact

- The proposed Low Ambition BIG scenario pathway is expected to produce balance upward adjustments of both government revenue and government expenditure relative to GDP.
- The projected 3.6 percentage points increase in the average annual Benefits Paid by government-GDP ratio will be financed by the introduction of a 0.5% Wealth Tax and an expected increase in VAT revenue, which is projected to raise the average income tax-GDP ratio by 1.2 percentage points relative to the Base Scenario.
- The Scenario results show deficit and debt GDP ratios for the period that are within the same range as the Base scenario results.

Fiscal Indicators (2023-2030)	Baseline	BIG PATHWAY:
		Low Ambition
Total Benefit Paid-GDP Ratio (Annual Ave)	4.9	8.5
Taxes on Income and Wealth-GDP Ratio (Annual Ave)	15.7	16.9
Government Expenditure-GDP Ratio (Annual Ave)	31.8	35.6
Government Revenue-GDP Ratio (Annual Ave)	28.8	32.3
Deficit GDP Ratio (Annual Ave)	-3.0	-3.3
Debt GDP Ratio (Annual Ave)	74.2	73.8

Scenario 1: Low Ambition BIG Pathway Household Impact

- The rate of decline of the poverty rate during 2023 and 2030 will be 33% faster than the projected rate for the Base Scenario.
- Between 2023 and 2030, the poverty rate is expected to decline by 7.3 percentage points more than the Base Scenario.
- Relative to the Base Scenario, the Low Ambition Scenario is expected to reduce the depth of poverty (measured by the poverty gap) more significantly than the poverty rate.
- As expected, the Low Ambition BIG Scenario, that significantly benefits the poor and low income individuals, more significantly improves income inequality, relative to the Base Scenario.

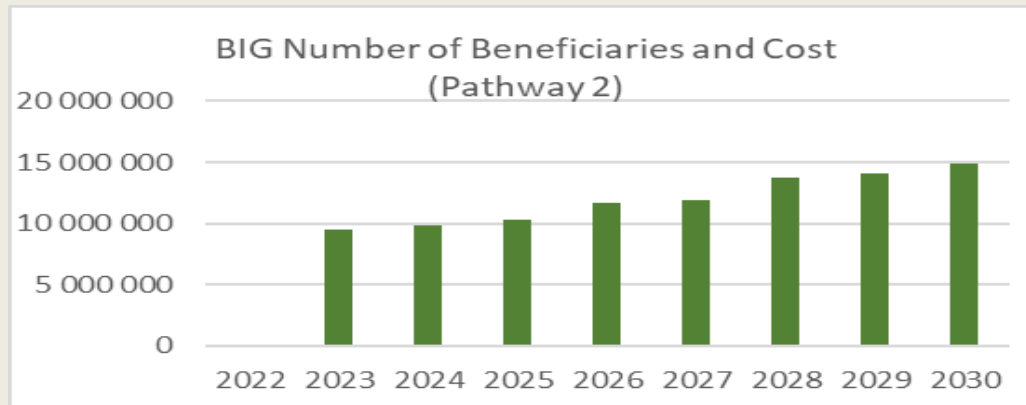
Household Impact (2023-2030)	Baseline	BIG PATHWAY:
		Low Ambition
Poverty Rate (SA) (% change, 2022-2030)	-21.8	-29.1
PR - Male	-22.6	-30.8
PR - Female	-21.1	-27.6
PR - African	-20.8	-28.0
PR - Coloured	-43.6	-51.9
PR - Q1	-15.2	-21.8
PR-Q2	-16.6	-26.5
Poverty Gap (SA) (% change, 2022-2030)	-25.1	-63.6
PR - Male	-23.5	-66.3
PR - Female	-26.6	-60.9
PR - African	-24.1	-62.6
PR - Coloured	-45.7	-79.1
PR - Q1	-20.5	-54.7
PR-Q2	-22.9	-61.7
Gini SA (% change)	-9.8	-15.2
Gini - Male	-9.7	-14.3
Gini - Female	-8.8	-18.0
Gini - African	-9.8	-16.4
Gini - Coloured	-10.1	-15.0

Scenario 2: Medium Ambition BIG Pathway

- Basic Features of the Scenario:

Scenario 2: Medium Ambition BIG Scenario			
	2023-2025	2026-2027	2028-2030
Means Test	LBPL	UBPL	Two times UBPL
Grant Amount	FPL	LBPL	UBPL

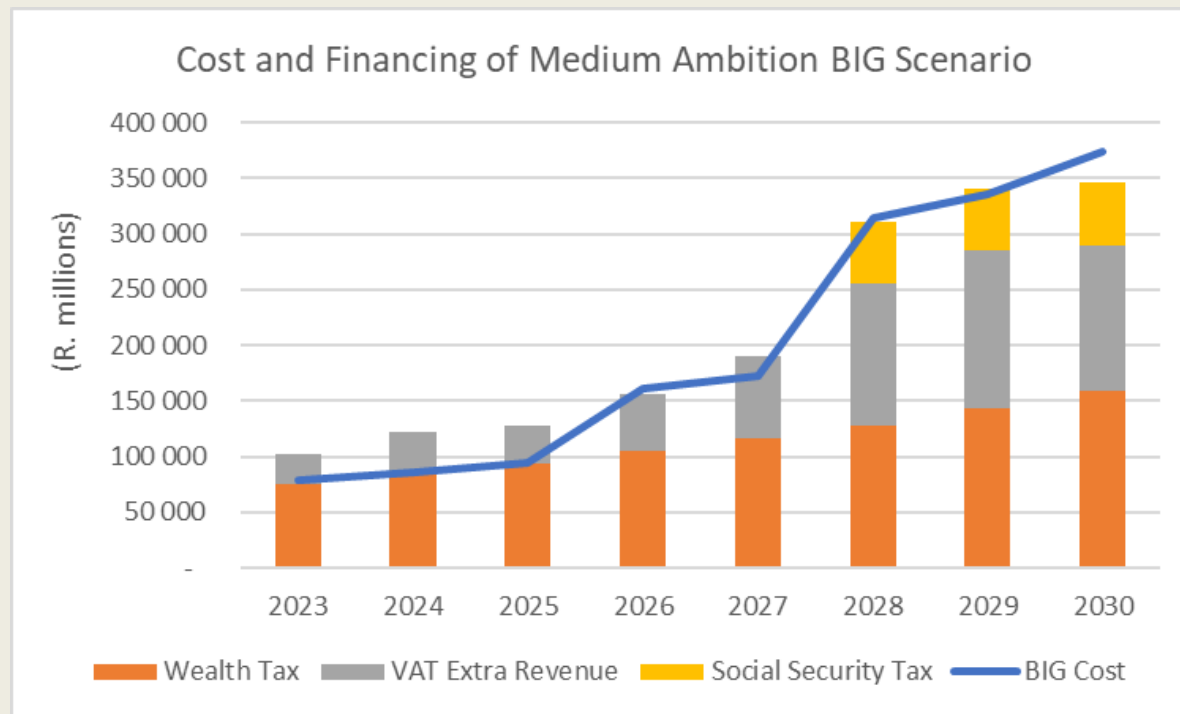
- Beneficiaries of the Scenario: Model projections show that, with the 60-80% take up rate, the number of grant recipients is projected to start with 9.4 million in 2023 and gradually increases to 14.9 million by 2030.



Scenario 2: Medium Ambition BIG Pathway

Cost and Finance

- Cost and Financing of Scenario 2: The financing needs of this scenario are met through:
 - Introduction of a Wealth Tax at 1.0% from 2023 onward.
 - Introduction of a Social Security Tax in 2008 at 3% of wages up to the taxable maximum of R2.5 million.
 - Increase in VAT revenue due to the positive impact of the scenario on the Gross Domestic Expenditure (GDE)



Scenario 2: Medium Ambition BIG Pathway

Macroeconomic Impact

Relative to the Base Scenario Results, the Medium Ambition BIG Pathway will be responsible for:

- 1 percentage point increase in average real GDP growth between 2023 and 2030.
- 0.7 percentage point increase in the CAGR of real per capita GDP during the next 8 years.
- Raising the CAGR of both the AD and AS.
- 3.9 percentage point decrease in the average annual unemployment rate during the next 8 years.

Macroeconomic Indicators (2023-2030)	Baseline	BIG PATHWAY:
		Medium Ambition
GDP Growth (Ave)	2.2	3.2
Gross Domestic Expenditure (CAGR, Real)	2.2	2.8
GDP Per Capita (CAGR, Real)	0.8	1.5
Aggregate Supply (CAGR, Real)	2.3	2.8
Aggregate Demand (CAGR, Real)	2.4	2.7
Unemployment Rate (Ave)	32.1	28.2
CPI (Ave)	3.8	4.5
Interest Rate (Ave)	6.9	7.1
Current Account-GDP Ratio (Ave)	-4.3	-4.5

Scenario 2: Medium Ambition BIG Pathway

Fiscal Impact

- The Medium Ambition BIG Pathway is expected to raise the average annual Government Expenditure-GDP ratio by 6.6 percentage points. At the same time, the Pathway's cost and finance projections show an increase in the average annual Government Revenue-GDP ratio by 5.5 percentage points. Overall, the model projections show that the average annual deficit and debt GDP ratios will be 1.1% and 1.3% higher than the Base Scenario results, respectively.
- The expected 5.9 percentage points increase in the average annual Benefits Paid by government relative to GDP will be financed by the introduction of a 1% Wealth Tax during 2023-2030, introduction of a 3% Social Security Tax in 2028, and an expected increase in the VAT revenue, which raises the average income tax-GDP ratio by 1.6 percentage points relative to the Base Scenario.

Fiscal Indicators (2023-2030)	Baseline	BIG PATHWAY:
		Medium Ambition
Total Benefit Paid-GDP Ratio (Annual Ave)	4.9	10.8
Taxes on Income and Wealth-GDP Ratio (Annual Ave)	15.7	17.3
Government Expenditure-GDP Ratio (Annual Ave)	31.8	38.4
Government Revenue-GDP Ratio (Annual Ave)	28.8	34.3
Deficit GDP Ratio (Annual Ave)	-3.0	-4.1
Debt GDP Ratio (Annual Ave)	74.2	75.5

Scenario 2: Medium Ambition BIG Pathway Household Impact

- With the Medium Ambition BIG Scenario, the percentage decrease in the poverty rate between 2023 and 2030 will be almost 2.5 times higher than the expected rate for the Base Scenario. For some population cohorts, the positive impact is projected to be even greater.
- Relative to the Base Scenario, the Medium Ambition Scenario is expected to reduce the depth of poverty even more significantly than the poverty rate.
- As expected, the Medium Ambition BIG Scenario, that mainly benefits the poor and low income individuals, is projected to reduce the overall Gini-Coefficient (i.e., reduce income inequality) by 17.7%, which is 81% better than the expected outcome for the Base Scenario.

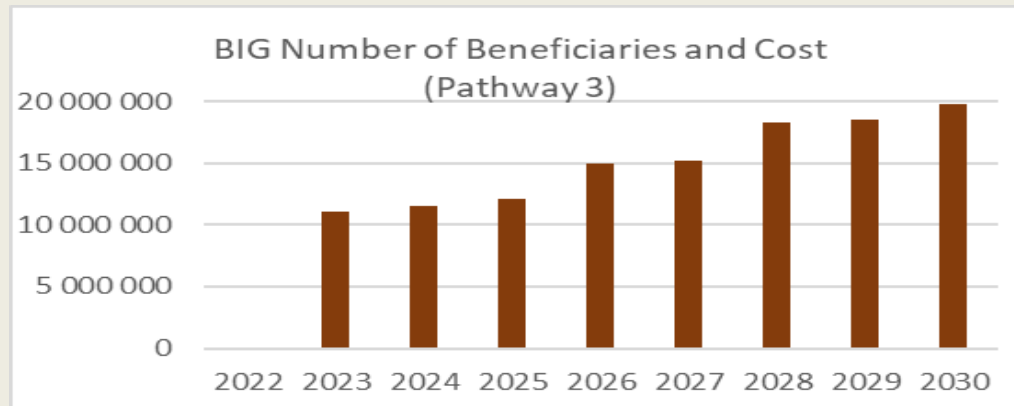
Household Impact (2023-2030)	Baseline	BIG PATHWAY: Medium Ambition
Poverty Rate (SA) (% change, 2022-2030)	-21.8	-55.3
PR - Male	-22.6	-61.8
PR - Female	-21.1	-49.6
PR - African	-20.8	-53.8
PR - Coloured	-43.6	-76.4
PR - Q1	-15.2	-41.5
PR-Q2	-16.6	-52.0
Poverty Gap (SA) (% change, 2022-2030)	-25.1	-82.2
PR - Male	-23.5	-86.4
PR - Female	-26.6	-77.9
PR - African	-24.1	-81.4
PR - Coloured	-45.7	-92.3
PR - Q1	-20.5	-73.7
PR-Q2	-22.9	-80.2
Gini SA (% change)	-9.8	-17.7
Gini - Male	-9.7	-16.5
Gini - Female	-8.8	-22.3
Gini - African	-9.8	-19.5
Gini - Coloured	-10.1	-17.4

Scenario 3: High Ambition BIG Pathway

- Basic Features of Scenario 3:

Scenario 3: High Ambition BIG Scenario			
	2023-2025	2026-2027	2028-2030
Means Test	2 times UBPL	4 times UBPL	6 times UBPL
Grant Amount	FPL	LBPL	UBPL

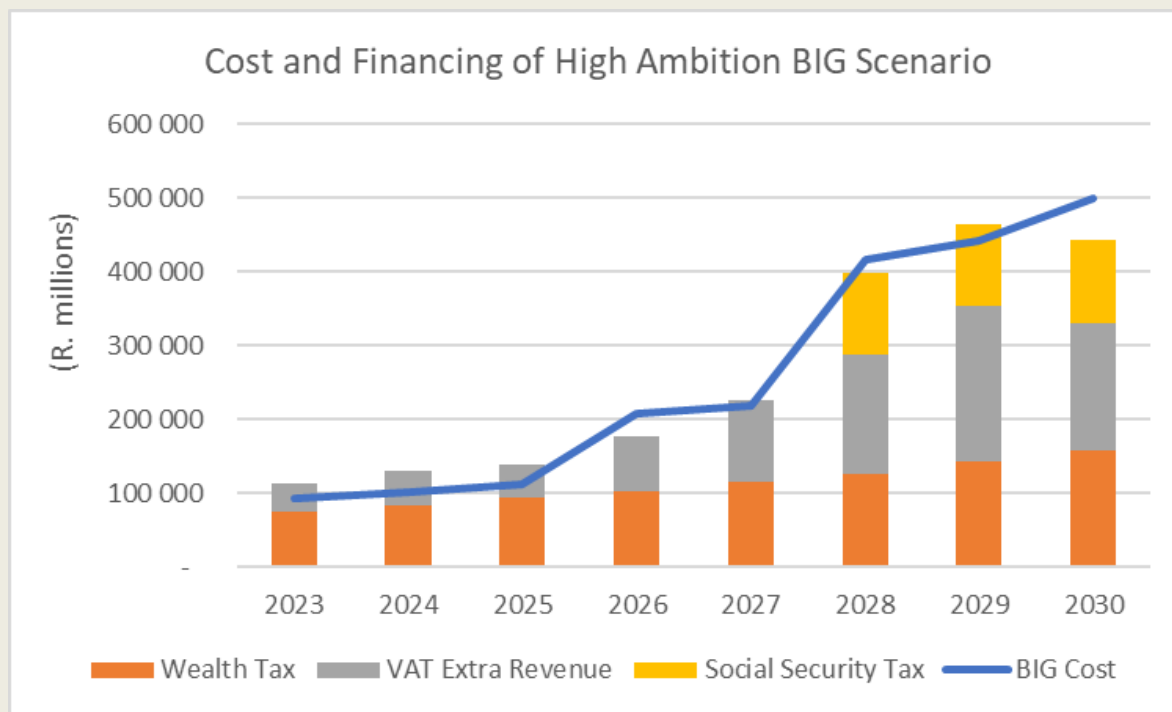
- Beneficiaries of Scenario 3: Model projections show that, with the take up rate that starts with 60% in 2023 and gradually increases to 80% by 2030, the number of grant recipients start at 11.1 million in 2023 and gradually increases to 19.8 million by 2030.



Scenario 3: High Ambition BIG Pathway

Cost and Finance

- Cost and Financing of Scenario 3: The financing needs of this scenario are met through:
 - Introduction of a Wealth Tax at 1.0% from 2023 onward
 - Introduction of a Social Security Tax in 2028 at 4% of wages up to the taxable maximum of R2.5 million.
 - Increase in VAT revenue due to the positive impact of the scenario on the Gross Domestic Expenditure (GDE)



Scenario 3: High Ambition BIG Pathway

Macroeconomic Impact

Relative to the Base Scenario, the High Ambition BIG Scenario will help achieve the following during the period between 2023 and 2030:

- 1.2% Increase in the average annual real GDP growth rate.
- 1% increase of Compound Annual Growth Rate (CAGR) of the real per capita GDP.
- 4.9 percentage point decrease in the average annual unemployment rate.
- Stimulate both AD and AS, producing balanced growth.

Macroeconomic Indicators (2023-2030)	Baseline	BIG PATHWAY:
		High Ambition
GDP Growth (Ave)	2.2	3.5
Gross Domestic Expenditure (CAGR, Real)	2.2	3.0
GDP Per Capita (CAGR, Real)	0.8	1.8
Aggregate Supply (CAGR, Real)	2.3	2.9
Aggregate Demand (CAGR, Real)	2.4	2.8
Unemployment Rate (Ave)	32.1	27.2
CPI (Ave)	3.8	5.1
Interest Rate (Ave)	6.9	7.2
Current Account-GDP Ratio (Ave)	-4.3	-4.6

Scenario 3: High Ambition BIG Pathway

Fiscal Impact

- The High Ambition BIG Pathway is expected to raise the average annual Government Expenditure-GDP ratio for the period by 8.9 percentage points. At the same time, the Pathway's cost and finance projections show an increase in the average annual Government Revenue-GDP ratio by 6.9 percentage points. Overall, the model projections show that the average annual deficit and debt GDP ratios will be 2% and 3.1% higher than the Base Scenario results, respectively.
- The expected 7.7 percentage points increase in the average annual Benefits Paid by government relative to GDP will be financed by the introduction of a 1% Wealth Tax during 2023-2030, introduction of a 4% Social Security Tax in 2028, and an expected increase in the VAT revenue, which helps raise the average income tax-GDP ratio by 1.8 percentage points relative to the Base Scenario.

Fiscal Indicators	Baseline	BIG PATHWAY:
		High Ambition
Total Benefit Paid-GDP Ratio (Annual Ave)	4.9	12.6
Taxes on Income and Wealth-GDP Ratio (Annual Ave)	15.7	17.5
Government Expenditure-GDP Ratio (Annual Ave)	31.8	40.7
Government Revenue-GDP Ratio (Annual Ave)	28.8	35.7
Deficit GDP Ratio (Annual Ave)	-3.0	-5.0
Debt GDP Ratio (Annual Ave)	74.2	77.3

Scenario 3: High Ambition BIG Pathway

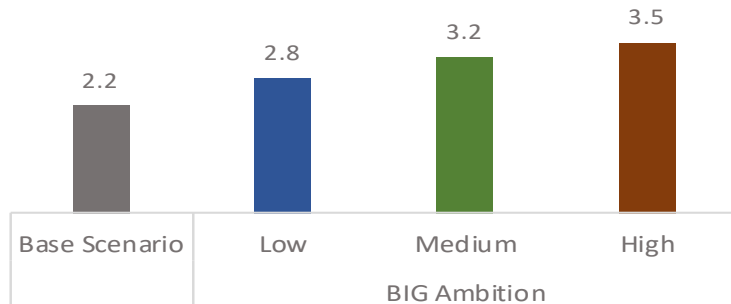
Household Impact

- With the High Ambition BIG Scenario, the percentage decrease in the poverty rate between 2023 and 2030 will be almost 2.8 times higher than the expected rate for the Base Scenario. For some population cohorts, the positive impact is projected to be even greater. During the next 8 years, the national poverty rate is projected to decline by almost two-thirds.
- Relative to the Base Scenario, the High Ambition Scenario is expected to reduce the depth of poverty even more significantly than the poverty rate.
- As expected, the High Ambition BIG Scenario, that mainly benefits the poor and low income individuals, is projected to reduce the overall Gini-Coefficient by 19.1%, which is almost twice the expected outcome for the Base Scenario.

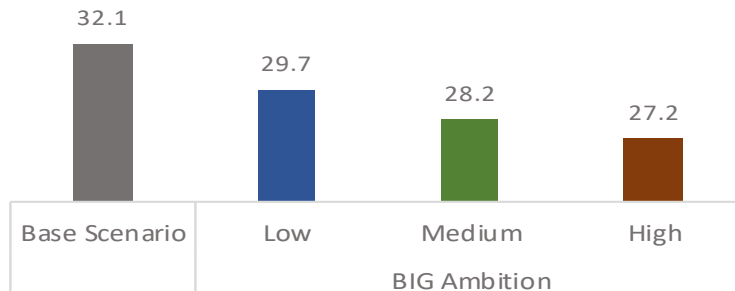
Household Impact	Baseline	BIG PATHWAY: High Ambition
Poverty Rate (SA) (% change, 2022-2030)	-21.8	-61.0
PR - Male	-22.6	-67.3
PR - Female	-21.1	-55.5
PR - African	-20.8	-59.8
PR - Coloured	-43.6	-78.2
PR - Q1	-15.2	-47.3
PR-Q2	-16.6	-63.4
Poverty Gap (SA) (% change, 2022-2030)	-25.1	-83.6
PR - Male	-23.5	-87.6
PR - Female	-26.6	-79.5
PR - African	-24.1	-82.9
PR - Coloured	-45.7	-92.6
PR - Q1	-20.5	-75.6
PR-Q2	-22.9	-83.0
Gini SA (% change)	-9.8	-19.1
Gini - Male	-9.7	-18.1
Gini - Female	-8.8	-23.5
Gini - African	-9.8	-21.0
Gini - Coloured	-10.1	-19.9

Overall Comparison of Three BIG Scenarios

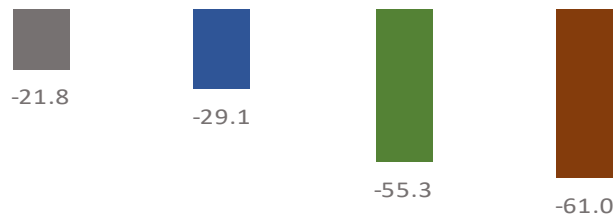
GDP Growth (Ave, 2023-2030)



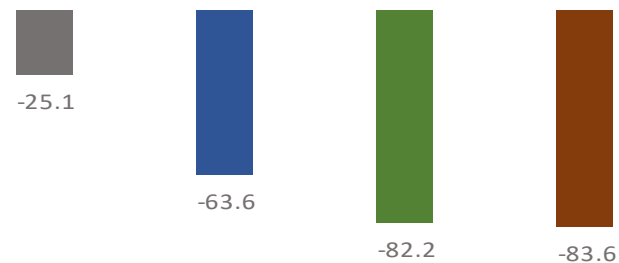
Unemployment Rate (Ave, 2023-2030)



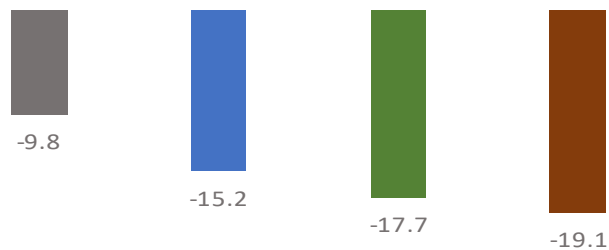
Poverty Rate (% change, 2022-2030)



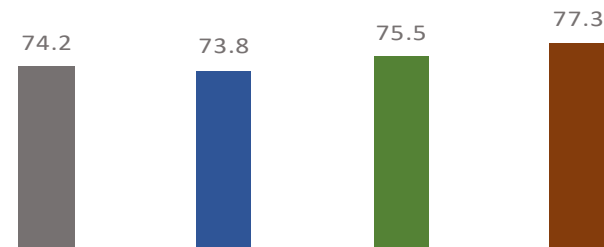
Poverty Gap (% change, 2022-2030)



Inequality (Gini % change)



Debt-GDP Ratio (Ave, 2023-2030)



Conclusions

- ADRS Dynamically Integrated Macro-Micro Simulation Model of South Africa (DIMMSIM™) was used to quantify the macroeconomic and development impact of three BIG pathways. Our analysis shows that
 - The three BIG pathways are each effective policies to significantly reduce poverty and inequality to varying degrees. For example, the Medium and High Ambition BIG scenarios are able to reduce income poverty by half and by almost two-third by 2030, respectively. The BIG programme is undoubtedly a pro-poor social policy programme.
 - In addition to their significant desired impact on poverty and inequality, the scenarios also have tangible positive impacts on growth and employment.
 - Our simulations of the three BIG pathways show that the combination of a relatively small wealth tax and social security tax can provide the necessary complementary resources that enable government to introduce and sustain the programme over time.

Thank You

www.adrs-global.com

All research and information is proudly sponsored by ADRS.
Research Team:

DR. ASGHAR ADELZADEH
Director and Chief Economic Modeller
Applied Development Research Solutions (ADRS)
asghar@adrs-global.com

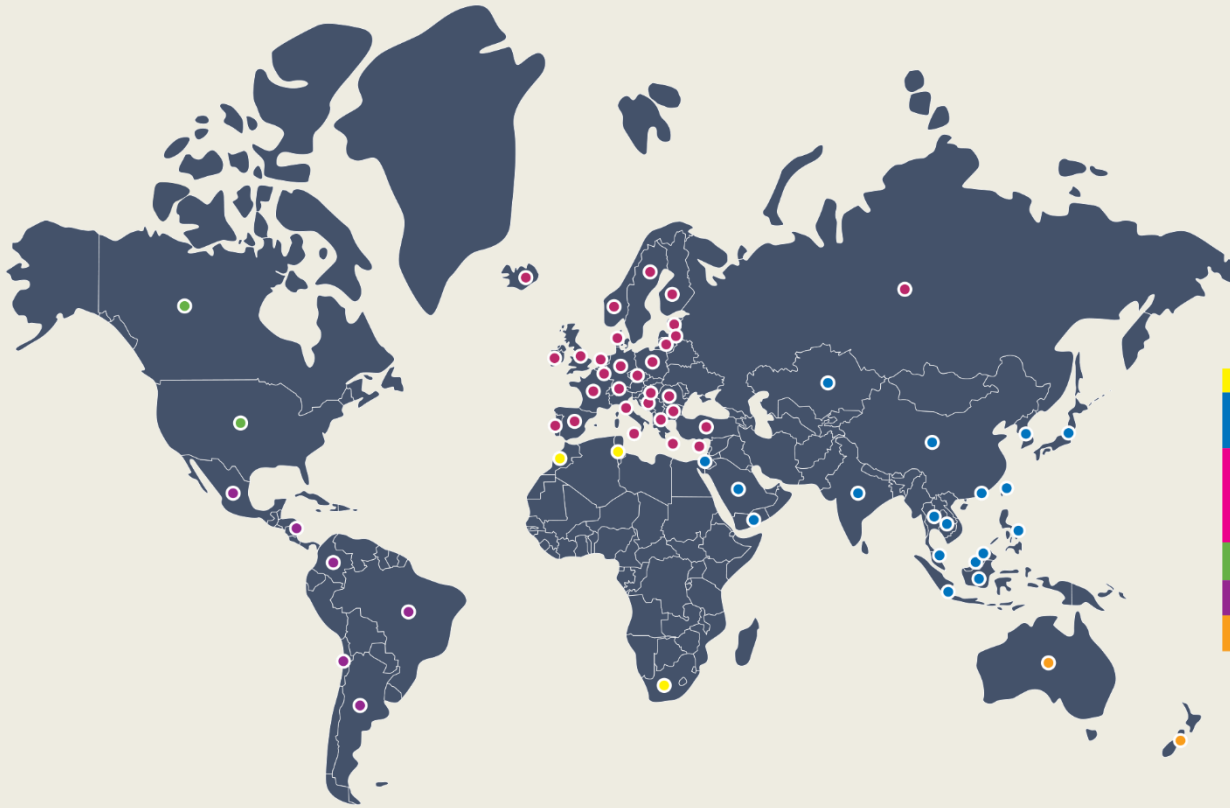
Applied Development Research Solutions is an independent economic consultancy organization with extensive experience in economic model building, capacity building, policy research, and advisory services in Africa.

Our innovative web-based interface gives users the power to design policies and test their impact prior to embarking on implementation. ADRS was founded as South Africa's new democracy embarked on economic, political and government transformation based on a new set of inclusive ideals. It was a time of incredible excitement and energy, ripe with optimism for the new dispensation and many ideas about how to right the economic wrongs of the past. Yet, it quickly became apparent that many well-meaning ideas had negative unintended consequences.

ADRS was created to provide critical foresight through innovative economic modeling tools to better inform economic policymaking. We have always been driven by the belief that intelligent policy design is a prerequisite to better and more sustainable economic development. We share these tools throughout Africa and beyond, in order to contribute to the economic well-being of people throughout the continent and the developing world.

Learn more about the power of economic modelling at www.adrs-global.com

ADRS COUNTRY MODELS



AFRICA	• MOROCCO • TUNISIA • SOUTH AFRICA (SUITE OF MACRO AND MICRO ECONOMIC MODELS)
ASIA	• BRUNEI • CAMBODIA • CHINA • HONG KONG SPECIAL ADMINISTRATIVE REGION OF CHINA • INDIA • INDONESIA • ISRAEL • JAPAN • KAZAKHSTAN • REPUBLIC OF KOREA • MALAYSIA • PHILIPPINES • SAUDI ARABIA • SINGAPORE • TAIWAN PROVINCE OF CHINA • THAILAND • YEMEN
EUROPE	• AUSTRIA • BELGIUM • BULGARIA • CROATIA • CYPRUS • CZECH REPUBLIC • DENMARK • ESTONIA • FINLAND • FRANCE • GERMANY • GREECE • HUNGARY • ICELAND • IRELAND • ITALY • LATVIA • LITHUANIA • LUXEMBOURG • MACEDONIA • MALTA • NETHERLANDS • NORWAY • POLAND • PORTUGAL • ROMANIA • RUSSIAN FEDERATION • SLOVAKIA • SLOVENIA • SPAIN • SWEDEN • SWITZERLAND • TURKEY • UNITED KINGDOM
NORTH & CENTRAL AMERICA	• CANADA • MEXICO • UNITED STATES OF AMERICA
SOUTH AMERICA	• ARGENTINA • BRAZIL • CHILE • COLOMBIA • COSTA RICA
OCEANIA	• AUSTRALIA • NEW ZEALAND