What on earth will our Earth be like in 2030?
Quo vadimus? Humanity’s journey to our next age…

UTOPIA?

Technologically
Climatically
Demographically
Financially
Geographically

DYSTOPIA?

“Most people overestimate what they can do in one year and underestimate what they can do in ten years.” Bill Gates
Vision 2030

Why are we ploughing this field?

1. We need to plan forward for both our clients and ourselves.
2. We need to know what to avoid as much as what to embrace.
3. It highlights potential ‘blind spots’ in our thinking.
4. It allows our colleagues to see what the rest of the Investec team is thinking.
5. It stimulates debate amongst ourselves and with our clients.
6. It prioritizes where further work still needs to be done.

We anticipate a disruptive decade on many fronts.

We need to know what to avoid as much as what to embrace.
Our Process

The Road we travelled
In the beginning was our words…

- Entertainment
- Inequality
- Aging populations
- Mass customisation
- Anti trust
- Multi-polar
- Trade Wars
- 5G
- Disruption
- Retirement poverty
- Bio technology
- Data protection
- Impact
- AI
- Ownership
- Populism
- Crowdfunding
- Deglobalisation
- Drones
- Carbon based trade
- Renewables
- Health and wellbeing
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Sketching our panorama for the 2020s

Five Mega Themes, Five Micro Lenses
The insights gained from examining our Mega Themes via our Micro Lenses let us envisage...

**Three Scenarios**

...which let us identify...

**Winners and Losers**

in our investment world
Our Five Mega Themes
What lies beneath

What qualified for us as a Mega Theme?

Each appears to be game-changing…

Each is mainly apolitical and a-economic…

…and possess a sense of inevitability

…and yet has huge political and economic ramifications

COLLECTIVELY, they have profound global consequences
Our Five Mega Themes for the 2020s

- Demographics
- Technology
- Climate
- China
- Debt
Widespread technological disruption occurs

THE COMPUTER
- Turing Test + self-learning computers = SINGULARITY
- Big Data capture/analysis/use
- AI transforms human society
- Virtual reality virtually everywhere
- Quantum computing and the cloud snowball
- Digital identity goes global, led by India’s Aadhaar
- Blockchain invades finance
- 5G reinvents communication
- IoT ‘Smartens’ everything
- Automation allows onshoring aiding aging societies

MEDICINE
- Genome sequencing, editing and therapy spread
- Virtual reality surgery occurs
- 3D-printed organs implanted
- Cures for malaria, diabetes 2, cancer, influenza
- Biotech and bioscience explode via nanotechnology, artificial blood, exo-skeletons
- Augmented intelligence ‘computerizes’ human brains
- Longevity extended permitting the 100 year life
- Computer-designed pharmaceuticals multiply

ENERGY & TRANSPORTATION
- Renewable energy proliferates via sun, wind, wave
- Energy prices crash
- Nuclear fission breakthrough
- Wireless power tapped
- Electric transportation on land, sea, air mushrooms
- Battery storage tech advances
- Robotics and automation permit self driving autos
- Urban transport revolutionized
- Widespread solar and wind-powered desalination viable

OTHER
- Fertilizer and cheaper water used more productively; new agricultural revolution
- Food revolution follows: meatless ‘meat’, safe GMO seeds and crops
- New materials: graphene, perovskites
- The end of plastic
- Cash curbed by digital money
- Biometrics aid crime reduction
- Warfare transformed: quantum cryptography, drone swarms, hypersonic missiles
Climate change with mostly negative consequences

Floods, dam collapses, volatile rainfall patterns
Decreased snow and glacial cover/ lower melts
Extreme weather: hurricanes/ cyclones
Frost-free seasons/ longer growing periods
More intense heatwaves and droughts
Rising temperatures, over sea and land
Waste management revolution
Melting ice-caps/ less sea ice
More devastating wildfires
Pollution/ water, soil, air

Deforestation, desertification, soil loss
Environmental decay (coastlines, coral)
Air quality/ greenhouse gases/ CO₂
Increasing humidity adding to warming
Out-of-season extreme weather events
Contested riparian rights/ water wars
Species loss/ loss of biodiversity
Fresh water shortages
Ocean acidification
Rising sea-levels

These events will test our planetary boundaries
Demographic change shapes national destinies

- China’s demographic time-bomb – due to the One Child Policy – explodes as workforce shrinks
- Ageing populations lead to ballooning health and pension expenditure, especially in the West
- Japanification envelops Europe and even the US; falling populations become commonplace
- Longer education becomes the norm; re-education grows as job changing increases
- Underfunded/unfunded pensions, especially in Europe, cause public finance havoc
- Asia avoids the ‘pension trap’: individuals not the state must save for their own pensions
- Rural urban migration continues to drive economic progress in both Asia and Africa
- Age pyramids determine national economic prospects: old vs. young is the key ratio
- The electoral power of the West’s Grey Vote compounds intergenerational tensions
- World divides between nations with declining vs. ballooning workforces
- The consumer preferences of Millennials and Gen Z leave their mark
- Living to 100+ becomes more likely as advances in medicine occur
- Later retirement ages becomes the unpopular norm everywhere
Demographic change shapes national destinies

India population: 1,373,605,068

Japan population: 125,402,911

MALES

FEMALES

MALES

FEMALES

Demographic change shapes national destinies
Rising debt haunts the Old World

- Central bank independence usurped by negative interest rates; instead exchange rate targeting grows
- Negative yields crush traditional banking; fintech further undermines Old Banks’ earnings streams
- The new normal in the West - Japanese-style negative yielding bond curves – reinvents finance
- Growing influence of Chinese bond yields in determining the global price of risk and of capital
- Fiscal rectitude/ ‘austerity’ challenged by Modern Monetary Theory, QE∞ monetary policies
- Nations realize ‘off-balance sheet liabilities’ especially from un/underfunded pensions
- Bursting bubbles increase risk of debt deflation especially if house prices fall
- Currency wars/ planned depreciations/ maxi and competitive devaluations
- China’s financial markets mature and exhibit more ‘logical’ behaviour
- Financial crises result from sovereign/ corporate/ consumer debt
- The numbing effect of rising debt masks underlying dangers
- Eventually deficits do matter, despite Cheney
- Intergenerational debt repudiation occurs
A China-centred East rises...

- China’s economy overtakes the US by 2030; population-wise, India overtakes China by 2026
- 2030 world population 8.5 billion; 47% in Asia; 66% in still expanding Asian and African urban areas
- The top 7 cities by population are Asian: Tokyo, Delhi, Shanghai, Mumbai, Beijing, Dhaka, Karachi
- China’s external deficit forces capital account to open
- China’s masterplan “Made in China 2025” develops into “Invented, Designed and Made in China 2030”
- New commodity bonanza risks Dutch Disease outbreak
- Asia Beyond China – ABC – is an economic force: India leads Indonesia, Vietnam, Philippines follow
- With FAI infrastructure largely built, consumption from Asia’s Middle Class shifts the centre of economic gravity
- East China’s ‘Marshall Plan’ extends sphere of influence into the ‘One Belt One Road’ Eurasia/Africa region

...displacing a US-centred West

- A new Global Great Game develops not just in Asia
- Chimerica divorces; the Thucydides Trap is set
- The US retreats into its shell... and lashes out:
- Asian flashpoints: Taiwan, North Korea, Hong Kong
- Germany Inc caught between Deus ex Machina (automation) and Deus ex China (Asian industry)
- The Indian Ocean Basin has the world’s best demographics and productivity growth
- Aged Japan and the EU stall economically
- Dollar vs. Renminbi; currency blocs emerge
- The €urozone cracks; its weak South leaves
- Bretton Woods institutions suffer erosion
- Military arms and tech race intensifies: hypersonic missiles, quantum cryptography
- Competition intensifies over Antarctica, Arctic, Oceans, Space, Cyberspace
The Five Lenses through which we viewed the Five Mega Themes of the 2020s

- Geopolitics & Geo Economics
- Tech & the individual perspective
- Politics
- Economics
- Financial Markets
15 key questions that shaped our three scenarios

**Politics**
- Will the aged hijack Western democracies?
- Will the young force change in Asia?
- Will populism and extremism be contained within the democratic process? And even within China?
- How will anti-elitism and widening inequality be handled? Will the digital divide add to these tensions?

**Economics**
- How much more fiscal spending can Western democracies afford? Will extra spending be MMT-funded?
- Will ever higher national debt disrupt bond market functioning? Will the US join the negative yield club?
- How will under and unfunded pension and health schemes be financed?

**Geopolitics & Geo Economics**
- How will China’s priorities alter global economic and political norms? And the environment?
- Will the Thucydides Trap be sprung? Will China lead the US technologically by 2030?
- Will the rise of ABC – Asia Beyond China – further alter the balance of political and economic power?

**Financial Markets**
- Will renewable energy growth tame the growing carbon cloud? Will carbon die? Will desalination go mainstream?
- Will gains from clever computers outweigh society losses?
- How will automation impact the job market?
- How will markets respond to climate change?

**Tech & the Individual Perspective**
- Will the Eurozone – and even the EU – survive? Wither – or whither – the UK?
- Will global capital become Asia-centric?
- Where goes the RMB? And Chinese monetary policy?
- Will global multinationals be tamed? How will China Inc fit in?
### The road to each scenario

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<th>The interlocking and interaction of our Five Mega Themes with our Five Lenses shapes our Three Scenarios that may describe the 2020s</th>
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<td>Reflexivity: The Five Lenses evolve as they interact with the Five Mega Themes. Thus the perspective shown by the Five Lenses also evolves</td>
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<td>Our investment landscape is largely defined by the interaction of the insights characterizing the 2020s</td>
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Our investment landscape is largely defined by the interaction of the insights characterizing the 2020s.
Our Three Scenarios

Examining our Five Themes through our Five Lenses let us identify features that defined Three Scenarios that could play out in the 2020s.

Two big questions were common to all Three Scenarios:

• Quo vadis Free Market Capitalism?
• Quo vadis Liberal Democracy?
Our Three Scenarios in more detail

• Faltering steps taken in new directions remind people what might be lost if Free Market Capitalism and Liberal Democracy are jettisoned

• The ideas and principles underlying both systems prove worth defending, restoring and even updating

• New converts to the old cause coming from developing regions – especially Asia – reinforce this renaissance

• Some countries – mostly Old World – keep the flames burning of Free Market Capitalism and Liberal Democracy. Others, mostly New World but also Old, try taking different political and economic paths. For instance:
  ➢ "Illiberal democracy" spreads in the Old World whilst state-directed capitalism expands in the New
  ➢ New economic models – often authoritarian – qualify 20th Century conventional economic wisdoms

• Novel approaches are tried and tested; some fail; others do not fail but are not universally accepted and adopted

• New systems – mostly pioneered by Asia’s population giants and especially China – carry the world beyond Free Market Capitalism and Liberal Democracy

• The political form that may emerge encompasses a tech-enabled elite that curtails free-wheeling, individualist 20th Century capitalism replacing it with a quasi-capitalist system that is more collective and centrally directed

• Some ‘noisy’ democracy prevails, mostly via online protests or leaderless street demonstrations
Twelve actionable bright ideas arising

By 2030...

1. **Energy** transformed. So is **water** … carbon chokes
2. **Asian consumers** drive global growth; **India** comes of age
3. **Chinese capital markets** bloom; so does the **RMB**
4. **New tech** divides a few **winners** from many **losers**

5. **Climate change** divides countries and companies
6. **Some win; some lose;**
7. **Central banks** manage **exchange rates** more than **interest rates**
8. **Western governmental invasion** corrupts free markets
9. **The West Japanizes** chasing away profit-seeking investment
10. the **US Dollar** challenged; an **RMB bloc** develops; gold shines
11. There is **little to no yield** in **Western bonds**
12. The **dawn of medically enhanced 'super humans'
Opportunities for value creation and value destruction

**WINNING IDEAS**
- New Asian stocks, bonds, property
- Cheap energy and water beneficiaries
- Green industry suppliers and consolidators
- Robotics and automation suppliers
- New pharma, treatment and healthcare
- Experience-based luxury
- Asian consumer services especially travel
- IoT making homes smart
- City States of Singapore, Dubai plus Shanghai & Mumbai,
- Fintech
- Defence
- Gold

**LOSING IDEAS**
- European & Japanese banks, industrials
- Carbon-based energy; regions producing oil/coal
- Old Tech, net interest margin dependent banks
- Generic pharma
- Demographically old regions
- European and Japanese consumer
- Korea, Taiwan, Hong Kong
- Big Tech if ‘too big’
- Heavily indebted regions
- Domestically focussed Old World companies
- Old World currencies
- Regions hit by climate change
By 2030, HUMANITY will still be here.