Montrose

NEW ROUTES: TO PROSPERITY OR CONFLICT?

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"He either fears his fate too much, or his deserts are small, that puts it not unto the touch, to win or lose it all."

James Graham, First Marquis of Montrose (1612–1650)

THE NEW SILK ROAD: SPINNING A NEW AND AMBITIOUS NARRATIVE

LANXIN XIANG

ORIGINS

President Xi Jinping launched a grand project in 2013 named One Belt and One Road (OBOR). Some Chinese scholars claim this to be a unique Chinese invention rooted in ancient international market networks established by the Chinese empire some two thousand years ago. This claim has overlooked the very important fact that the Chinese empire never developed self-consciousness about the significance of the old silk road, as this trade activity consisted of a very small portion of the national economy. More importantly, OBOR is essentially an initiative of transnational infrastructure investment. China has had no experience in such activity. Indeed, from the Suez and Panama canals to the Russian Trans-Siberian and the Berlin-Baghdad railways, it was Europe that started the process of vast infrastructure investment projects in the late 19th century. Although the Chinese government actively denies having any geo-political aims and portrays this purely as an economic cooperation project, this ambitious initiative comprises two dimensions: first, a geostrategic reconfiguration of world politics; second, the geo-economic reconstruction of the Eurasian economy.

Like the 19th century projects of the similar vein, the New Silk Road, or OBOR, has inevitably raised concerns about some hidden geopolitical agenda, but one must recognise that China's search for geostrategic balance between Eurasia and the Pacific has been an open agenda, not a conspiracy. Some experts in the West have argued that it is primarily based on a counter-pivot strategy, referring to President Obama's new strategy of the "pivot to Asia" launched in 2010 to contain China's presumed territorial ambition as its physical power rises. Obama's pivot has three elements: reviving the Cold War style "Spokes and Hub" military and diplomatic alliance system; adopting a new military doctrine known as "Air Sea Battle (ASB)"; and using overwhelming and well-co-ordinated air and sea power to counter China's "asymmetrical warfare doctrine," which is heavily reliant upon anti-access weapons such as submarines and anti-ship missiles.

But China's own "pivot to the West" started much earlier. The geostrategic roots of this project go back to the transatlantic split over the Iraq War during the heated UN Security Council debates at the time. Emerging from the Iraq War was a diplomatic *entente active* against the war, and Charles de Gaulle's dream of a Europe from the Atlantic to the Urals was extended effectively to the East China Sea. Sir Telford MacKinder's heartland of the world, Eurasia, had in certain way become one. Thus, as an unexpected side-effect of the war in Iraq, the path for China's long term strategy of integration into the global mainstream was greatly eased. Moreover, for the first time in history, no major geopolitical conflict divides the powers of the Eurasian mainland. As a result, three new strategic links have arisen – the Sino-Russian strategic partnership; the EU 'Common Strategy towards Russia'; and what the EU and China are explicitly describing as 'comprehensive strategic partnership' built with transparency, little fanfare and no declared common enemy. These developments will undermine the unipolar world that the United States is attempting to maintain.

At the same time, and quite remarkably, China was drawn for the first time into a "continental" strategy. After years of hesitation, China's grand strategy of 'peaceful rise', not yet convincing in Asia-Pacific, has new potential to be concretised and fulfilled on the Eurasian continent. Therefore, the Chinese leadership seized this historic opportunity to launch a bold "Westward Strategy" to help China alleviate the enormous geostrategic imbalance and pressure from the Asia Pacific region. Up to then, China had relied upon a strategy with an eastward orientation, i.e., upon the US-China amity which has yet to be realized.[1] History proves that China has made a right decision. The new orientation towards the EU, Russia and Central Asia has been successful, and the EU has emerged since 2004 as the number one economic partner of China. The Sino-Russian relationship is now at its best, since perhaps Catherine the Great. Central

1 For first interpretation of the new Chinese strategy, see Lanxin Xiang, "China's Eurasian Experiment", *Survival*, issue 46, volume 2, 2004

Asia is firmly anchored in a regional framework, the only multilateral initiative Beijing has implemented so far, the Shanghai Cooperation Organization.

In its geo-economic dimension, OBOR serves at least three purposes. First, this is in Chinese domestic terms a continuation of the decades-old "grand Western development strategy" aimed at redressing the developmental imbalance between the more dynamic east coast, and central and western China. Due to its historical development, geographical advantage and easy access to the sea, resources and labour were directed to the east coast ever since the economic reform launched by Deng Xiaoping in 1978, leaving the west not only lacking in investment but also manpower. This regional imbalance is considered a huge risk to the sustainability of the economy and to social stability. The income gap has been growing fast and China's GINI coefficient, a standard measure indicating the relationship between income discrepancy and social stability, has already reached a dangerous level. China's east coast economy boasts over 50% of GDP with only 10% of the territory and 38% of the population. The income gap between the coast and inland has been maintained at 200% for a long time. OBOR with its westward orientation involves all fourteen central and western provinces. As China intends over the next five years to transform an export-led model of development into a consumer-based economy, income growth in the poor areas in the west will become crucial. The Chinese government often advertises OBOR as the "Third Opening" of China, not without reason. The first opening took place in 1979 when several Special Economic Zones (SEZs) were set up for attracting foreign investment. The second occurred in 1992, when the entire nation veered towards opening. And now a giant leap towards west.

Second, exporting infrastructure technology and investing in these projects are considered key to the success of OBOR. Not only might such a strategy help solve the problem of overcapacity in infrastructure accumulated over the past decades, but also help create more foreign markets by improving transportation facilities. Unlike the coastal economy, which has relied exclusively on maritime route, OBOR is primarily land-based. It depends mainly on vast continental stretches covering over 60 countries from Asia to Europe. The land connection between China and the countries along OBOR requires cross-border infrastructure networks, especially, roads, railways and airports. So far these networks are poorly developed. One part of OBOR is the "Maritime Silk Road". Although maritime routes have been kept open, nd access is relatively easy, OBOR is aimed at improving port facilities, building harbor zones, and creating logistical networks, in order to open up new spaces for economic development and secure new trade opportunities. According to Chinese leaders' calculations, the new frontier of economic growth will be in the "Third World", and nowhere is more promising than the Eurasian landmass.

Third, building new financial institutions is a priority. OBOR is a grand strategy for China, but for China's partners it is no more than an interesting initiative.

Russia – A Bridge Too Far?

Andrew Wood

Russia's leaders regularly proclaim their country's immanent role as a bridge between Europe and Asia, while also asserting Moscow's need to defend itself from the West, led as the Kremlin sees it by an inimical United States. Russian spokesmen point to the potential for rail, road, air and sea corridors through and to the North of their country. Particular attention has been recently drawn to the possibilities raised by the shrinkage of Arctic ice cover.

A glance at the map, and the existence for some considerable time of regular international flights over Russian territory, lend credence to the idea that there is room for the development of wider and more comprehensive trade routes through Russian territory. The fact is however that the country's infrastructure has not been built up to cope with such traffic. Initiatives to improve the country's rail network are launched from time to time, and promises are made to develop its roads. In 2012 President Putin publicised the construction of a trans-Russia highway from Vladivostok to Moscow by driving along a section in the Far East, but it is not clear how far the route has been developed to useful effect since then. The development and updating of the Trans-Siberian railroad is regularly declared to be a priority, but again to little tangible effect so far. The Chinese record in both road and rail building far outstrips that of the Russians in extent and in cost effectiveness.

Russia has of course a particularly difficult climate, which partly accounts for the heavy costs of infrastructure development. It also suffers from a particularly inefficient and predatory bureaucracy. The economic crisis that has grown since 2008, when the natural resources cushion that had sustained the Putin model over his first two terms in the Kremlin began to weaken, and which now constrains the Russian budget, is a further brake on the development, or even maintenance, of the country's infrastructure. Since Putin's return as President in 2012, talk of economic reform with its potential for addressing Russia's underlying systemic problems has died away, in favour of a centralised state model worked through a restricted group of favoured individuals grouped around him.

The perceived internal and external security interests of that state have always held pride of place for the Kremlin. Gazprom in its days of glory was seen as an organ of power in Europe, with its pipelines a means of binding European countries to Russia's will. That pattern was particularly clear in the case of Ukraine. The gas weapon has been weakened over time by the European Union, by the rise of shale gas, by the spread of liquified natural gas, and by Gazprom's own failures of management, but the idea that commercial transactions are an aspect of what in Soviet times Moscow described as correlations of force is still very much present in the Russian official mind. Declaring for example chocolate to be unsanitary is still a weapon to be used in case of need. The President of Ukraine has after all a personal interest in it.

Putin's Russia is committed to the proposition that "Great Powers" like, as he sees it, Russia, have a right to spheres of privileged interest. That need not, in principle and in theory, be incompatible with maintaining existing or developing new trade routes. In practice however it has gone along with Russian difficulties in adjusting to the facts of its integration into the global economy. Ukraine's Association Agreement with the EU is not incompatible with its economic relationship with Russia, but Moscow has chosen to see it as such because it rules out Kyiv's subordination to Moscow within the confines of Putin's prescription for a Eurasian Economic Union. Putin has been more willing to turn a blind though perhaps suspicious eye on China's success in building up its economic weight in Central Asia, and in providing Central Asian countries with the option of diluting their Soviet inherited dependence on gas and oil pipelines leading to Russia.

The current Russian government has committed itself to increased military expenditure at the marked expense of its other domestic obligations, such as the health or education of the Russian people, as well as the country's longer term trading interests. It is difficult to see how Russian interventions in Ukraine and Syria can serve to promote Russia as a reliable commercial or political partner. The Kremlin's focus in both cases has been on changing what Russia regards as an unacceptable world order which gives too much power to the United States. There is under this logic an argument which holds that Russian retention of its military base in Assad's Syria is an important national asset. Building up Russia's relationship with Iran, and perhaps elsewhere in the Middle East, are among Russia's ambitions as well. Similar motives underly Russia's attempts to build up the Shanghai Cooperation Council or BRICS to be more coherent political organisations than at present. None of these efforts have as yet however brought tangible and durable gains to Russia. Moscow suffers from over-reach rather than success in persuading the world that Russia is to be trusted as a major power in the world.

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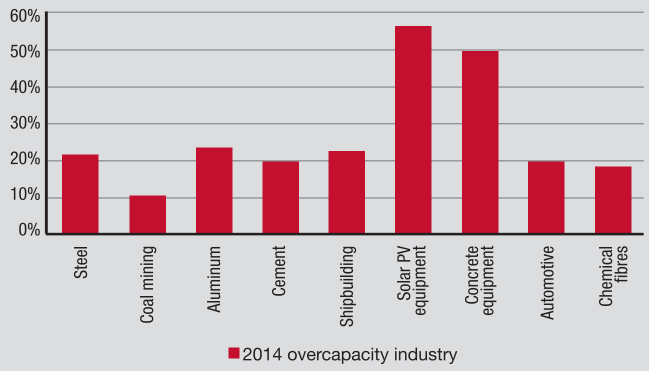
China understands that it alone cannot make OBOR a success, it needs active participation of related partners. Thus institution-building is crucial. As this initiative is focused on infrastructure investment, the ability of OBOR to attract governmental and private capital is crucial. The declared priorities of OBOR for regional economic cooperation include co-ordination of development strategies and policies, enhancing connectivity through infrastructure building, and building new financial institutions. So far, China has been initiator or founding member of the Asian Infrastructure Investment Bank (AIIB), the BRICS New Development Bank (BNDB) and the Silk Road Fund.

Average overcapacity reached c20% in China in 2014



Source: Bloomberg, Barclays Research estimates

CHALLENGES

With at least 140 billion dollars in hand for OBOR (100 billion for AIIB) and 40 billion for the Silk Road Fund), OBOR could surely attract much of the world's attention. It seems that more institutional efforts will be made in view of the American-led efforts to build new trading blocs, such as the Trans Pacific Partnership (TPP) in Asia and the Transatlantic Trade and Investment Partnership (TTIP) with Europe. With the United States effectively blocking China from having a major voice in global financial architecture, and excluding it from the new trading regime (TPP), China means to use OBOR to counter what President Xi recently criticized at the APEC summit in Manila, the negative trend of "splitting trading blocs" led by the US. However, as China has limited experience in joint international investment projects, OBOR must prove that its investment initiatives are transparent, commercially viable and free from political interference, either domestic or international. The key to its success lies in its capability of leveraging finance. It is estimated that the ambitious strategy will, in 30 years, require some seven to eight trillion dollars. Success or failure of the AIIB will prove crucial for the possibility of continuation of this strategy. China does not have enough talents who understand and have operational experience in leveraging financing. The lack of expertise will become a major bottleneck in the process of implementing this strategy.

Moreover, many countries on the OBOR list have severe domestic problems which may threaten political stability and render any large infrastructure project difficult to continue. Thus the termini of the New Silk Road may increasingly become more promising, especially EU countries as well as a few East European countries such as Poland, Hungary, or Czech. EU is intensely interested in OBOR, and the EU presidency could use the newly created European Fund for Strategic Investment (EFS) as a bridge between EU and OBOR. Originally this fund was created for reviving the public bond idea, against German wishes, to address member-states' public debt problem. By collaborating with OBOR, it could help rekindle growth in Europe by financing energy, transport and digital networks. The fund aims at a large capitalization of 315 billion euros, and Chinese sovereign funds have already shown enormous interest in it. But if that happens, the declared purpose of helping developing countries will be discounted as the countries between Europe and China will feel marginalised.

Last but not least, despite its extremely cautious approach to geopolitics, China cannot avoid the fact that the initiative will have geopolitical implications. So far China has explained OBOR poorly. China not only has to deal with the potential challenges from both TPP and TTIP in trade and investment, but also has to deal with issues involving its close partners. For example, its Pakistan project, if handled poorly, will reinvigorate rivalry with India. In Eurasia, Russia has been very sensitive to the obvious fact of Sino-Russian asymmetry of power today, and fear of Chinese "takeover" of Russia's "near abroad" persists. In pursuit of these geo-economic and geopolitical goals that would bind Asia to China ever more closely through commercial means, Beijing has recently allocated US$ 40 billion dollars for the first Silk Road alone, on top of large-scale investments in Central Asia, information systems, telecommunications, transportation, energy pipelines, and infrastructure. Russia provides no real competition for the foreseeable future.

What are the implications for the EU? There are undoubtedly great economic opportunities. But growing Sino-European monetary ties may present the EU with a major political challenge, either dividing EU member states politically or leading to a populist backlash against China, as the case of the port of Piraeus in Greece has shown. In conclusion, OBOR has potential to be a game-changer in economic geography on the Eurasian continent. Beijing must recognise that OBOR is an initiative that needs inputs from the outside world, which could help China to fulfill its declared objective of staging a peaceful rise through investment and trade rather than by force. If successful, it will prove wrong the logic of a *Thucydides Trap* – that armed confrontation between the ruling power and the rising power is inevitable.

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SOFTWARE VERSUS HARDWARE: THE NEW TRADE WAR BETWEEN THE US AND CHINA

PHILIP DELVES BROUGHTON

American policy towards China involves a constant effort to calibrate the gap between its ambitions and its ability to execute, between Beijing's propaganda, and its achievable intent. The New Silk Road is a significant new piece of this puzzle, to go alongside China's ghost cities, its war on corruption, the cyber attacks on American companies and government networks and its naval jousting around the Spratly Islands in the South China Sea.

No one in Washington can say for sure whether these are genuine challenges to the current economic and military order or as phony as film sets, vulnerable to being toppled at the slightest push. But equally, no one is willing to take their eyes off this fast-evolving situation.

For every move either side makes, the other has a counter. China announces the New Silk Road, America finalizes the Trans Pacific Partnership (TPP). China sends its Pacific fleet on manoeuvres, America encourages Japan's re-armament.

Depending on the time of day, and who you talk to in New York, Washington and Silicon Valley, China's emergence as an economic superpower is viewed either as America's greatest economic opportunity or its greatest threat. There is a cadre of international bankers, like Hank Paulson the former Treasury Secretary, who have long been China bulls, urging deep and constant engagement. Until very recently, they have been the dominant voice of American economic diplomacy towards China, muting concerns about China's governance, human rights or environmental records in favour of supporting its market reforms and economic growth.

But the sceptics and bears have been gaining ground, the New York based short-sellers who say China's economy is a debt-fueled mirage soon to collapse. They are concerned that China's newfound military assertiveness and Xi Jinping's attempt to build new global alliances reflect an internal panic about the slow implosion of China's export-driven economy. Silicon Valley, the other significant US voice in this debate, is torn between soaring iPhone sales in China and a booming Internet market, and the relentless battle to fend off Chinese based hackers and operate under Beijing's censorship rules. We see Mark Zuckerberg learning Mandarin – and starting to speak it excellently, by the way – while behind the scenes the giant tech firms have to spend fortunes protecting their firewalls.

Europe's response to China's surging economic clout reflects a different internal debate. When the Asian Infrastructure Investment Bank (AIIB) was established in 2014, Britain led the rush of Western countries to join, against the wishes of the Americans. Europe is already starved for growth, and the possibilities presented by China's markets and its investable capital are irresistible. Britain's Northern Powerhouse plans, for example, are likely to depend heavily on Chinese investment. There is no economic risk to European countries tweaking America, but plenty in missing out on China. Both the AIIB and the New Silk Road have already served an important purpose for China, smoking out allies long before any serious trade has to be done.

America is not so desperate as Europe. The response of the Obama administration to China has been a kind of wary engagement. The diplomatic back and forth has been as busy as at any time in relations between the two countries. But the US believes that the trick to this relationship in the coming years will be in keeping China always slightly off-balance, forever chasing the dream of global economic supremacy, but never quite getting there. Managing the physical and legal infrastructure of global trade is going be decisive in achieving this goal.

David Dollar of the Brookings Institute in Washington DC describes the different Chinese and American approaches to global trade as hardware vs. software. The Chinese are roaming the world building factories and ports and sending workers all across Africa, Asia and Europe. They are promising to build the infrastructure of the future which will carry Chinese goods to new markets and secure vital commodities. For most of the period since Deng Xiaoping's reforms began opening China's economy, its advantage has been cheap labour. That advantage is now eroding. China's workers, particularly in the most developed areas along its southern and eastern borders, are demanding higher wages in return for their fast-improving educations and skills. There is cheaper labour to be found elsewhere in Asia, in Vietnam and soon in the slowly opening labour market of Myanmar, and Africa. The New Silk Road is part of China's evolution away from an economy driven solely by cheap exports, to one fueled by domestic consumption and the export of higher value goods. One can even add the recent decision to let families have two rather than just one child to the set of policies designed to improve China's domestic market.

"US BELIEVES THAT THE TRICK TO THIS RELATIONSHIP WILL BE IN KEEPING CHINA OFF-BALANCE, CHASING GLOBAL ECONOMIC SUPREMACY, BUT NEVER QUITE GETTING THERE." "

America views the attempt to build and control global infrastructure as quaintly old-fashioned. It smacks of grandiose, shambolic projects like the Pan-American Highway, the kind of projects America has long since abandoned. Instead, Washington has chosen the route of sweeping trade deals like the TPP with 11 countries in Asia and the Americas and the Transatlantic Trade and Investment Partnership (TTIP) with Europe, seeking to open markets and bind its allies through the free exchange of goods and services. While the Chinese build railways, the Americans draft legal documents. If you accept Dollar's analogy, then America's approach makes a lot of sense, as software tends to be cheaper and more easily updatable to handle new circumstances. China prefers the hardware approach because its code, its laws and authoritarian government, are not so amenable to change.

If China's plans were easily achievable, they would not have proved nearly so galvanising domestically. The New Silk Road rhetoric has proved popular in part because of its back to the future grandiosity. In one breath, Xi Jinping sweeps China back to the age when its great 15th century Admiral Zheng Ye led China's fleets to trade with Africa and Arabia.

But the practical challenges are immense and America can see that. For now it sees OBOR as more a rhetorical weapon than a real one. At best, it might lead to China being able to sop up some of its under-utilised industrial capacity by forcing projects on allies too weak to refuse. But set aside the engineering feats required to build new single-gauge railways and highways across Central Asia to Europe, or new ports around the Indian Ocean and the Horn of Africa. Building out the trade route along the Kashgar-Gwadar economic corridor linking western China to the Indian Ocean via Pakistan is not as simple as adding a new intersection to the M4. Not every country lying along the path of the New Silk Road is thrilled about China running new trade routes across their territory and spheres of influence. Russia does not want China building its influence in the former Soviet republics of central Asia. India is already unhappy about China's investment in Sir Lanka's port infrastructure. The Japanese are growling about China's naval manoeuvres in the Pacific. Lurking in all this discontent are possibilities for American leverage and influence.

The most cynical interpretation of the TTP and TTIP is that they are America's efforts to isolate China, to reassert Western influence over the global economy. While the TTP could in theory one day include China, the TTIP emphatically does not, while moving the United States and Europe towards a more integrated market. Once the TTIP is complete, China might find it more difficult to enter the US and European markets if various technical and environmental standards are raised.

But another way to think about the different American and Chinese approaches is to see them as complementary rather than hostile. The British government certainly seems to take the view that one can easily serve both masters. David Cameron's government has tested Washington's patience by actively courting China. Washington's response has been to view the British as a little uppity, greedy and perhaps naive, but nothing worse. There may even be a grudging admiration for Britain's efforts to develop greater trust with China, a commodity still short in US-China relations.

If one spins out trade scenarios over decades, it is easy to imagine global trade deepening and spreading courtesy of both US-led deals and Chinese-built infrastructure.

The biggest change from today would be that the West will have lost its ability to use trade as a cudgel to improve governance, human rights and environmental protections in China – though that cudgel has already been reduced to a twig by the rise of China's economy relative to the West's.

What we are seeing now, with the Chinese promising decades of infrastructure building and the Americans locking down deals with its major trading partners, are the two great sumo champions of the world economy settling in before a bout. They are settling in, slapping their thighs and throwing salt in the air, the way sumo wrestlers do to purify the ring. They are getting themselves ready for the moment when they must hurl themselves at each other.
During the Cold War, the much-feared confrontation between the Soviets and America never occurred. In this new Silk War between the United States and China, one can only hope for the same.

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MAKING SENSE OF MIGRATION: THE DEFINING ISSUE OF THE CENTURY

ROBERT FOX

People are on the move across the world in greater number than ever in history. The outpouring of refugees from Syria has captured the headlines and the attention of leaders in Europe and North America. The EU population agencies have estimated that 1.2 million migrants and asylum seekers will reach, or try to reach, EU and associated countries in 2015 alone. This has produced great challenges in security, welfare, and governance. But, if anything, the crisis of refugees and migration is not likely to abate – the prospects for 2016 are worse than 2015 as the conflicts in the Middle East, North and Sub Sahara Africa show little sign of slackening.

Population movement is set to become the defining issue of the century. People will leave their birthplaces in millions, driven by fear and a need for self-preservation, or by economic opportunism – the dream of riches in another land – or a sense of global entitlement to live securely wherever they want. Patterns of crowd behaviour not fully understood yet show that very large groups are prepared to risk life and limb on perilous journeys almost on a whim.

A great deal of statistical data reveals who the refugees and migrants are, where they come from and where they are going. But surprisingly little analysis enters the public domain about attitudes and aspirations, and disillusionment in the places of destination.[1] Why precisely do people decide to uproot everything, risking their own skins but also those of their children? Why does the place of destination so often fall short of the dream of destiny?

Among the big drivers for population movement, four stand out. First, there is demography itself – the doubling of the world's human population in just under a century and a half. According to the UN's revised population projection made in 2015, the global population is expected to be 11.2 billion in the year 2120. In 1990 it was just under the 6 billion mark. Africa is due to be home to nearly 5 billion humans in the second half of the 21st century – raising huge issues of governance, security and migration. In the space of under three decades, Morocco's government expects the arrival of more than 30 million migrants from West Africa, doubling the resident population – with many likely to move on to Europe.

Demographic surge and movement will accompanied by demographic decline, and in one or two places demographic collapse. Japan, and much of Europe, Germany and Russia especially, are ageing and declining in numbers. Natality – the level of reproduction per fertile woman – is set to decline in China, despite the lifting of the one child policy. So, in the old maxim, will China grow grey before it grows rich? In 85 years time, in the year 2100 China's population is projected to stabilise at around 1.004 billion. A large proportion will be old, and the economy will be increasingly reliant on migrant labour.

The second driver will be the effects of environmental and climate change. Here the centre of gravity of debate is beginning to shift from political polemic – climate change deniers versus the rest – to scientific analysis.

1 In Murder in Amsterdam (Penguin 2006) Ian Buruma illustrates this in a discussion with Bellari Said, a Muslim psychiatrist in Amersfoort, where over 20 per cent of the population are immigrants.

The World Climate Conference in Paris is another milestone for the world leadership grappling with the issue of toxic emissions – but the goals set at the preceding conferences still seem to be like the grapes of Tantalus.

The growth of desertification in Saharan and sub-Saharan Africa, Iran and North West Asia, and water stress in Yemen, Pakistan and across the Fergama valley are already generating movements of people, and even conflict. Coastlines are under threat of drowning in parts of almost every continent, and whole island chains, the Andamans and Maldives are at risk of drowning.

Added to this, the phenomenon of 'weird weather', violent storms and cyclones, which increasingly seem part of the pattern of climate change, will cause communities to up sticks and leave suddenly. The announcement of the Meteorological Office that the global average temperature had risen by one degree Celsius since the early industrial era, should have been a wake-up call on the eve of the Paris Climate conference. The Met Office has warned of "unpredictable consequences" as the rise in temperature heads towards the benchmark of two degrees average global increase since the late 18th century CE.

The third and fourth big drivers to popular movement are collapse of governance and the chronic condition now known as continuous conflict that persists in two dozen areas.[2]

In addition to the main drivers, a number of important catalysts to migration, legal and illegal, should be added. Prominent is the revolution in communication, the mobile telephone, electronic messaging and texting, the Internet and the prevalence of social media. These have shortened timelines and distances, and raised expectations and even a sense of entitlement. Information about the migrant routes, and how to manage them is distributed via vehicles such as Twitter, and the current favourite, What's App? As Tom Friedman has pointed out in the New York Times, the acceleration of communication capacity defined in Moore's Law has a particularly powerful effect on the world of human migration.[3]

Friedman points out the impact of globalisation, a belief that the migrant world is a part of globalised world and all the benefits and entitlements that concept purports to offer, including economic and personal security.

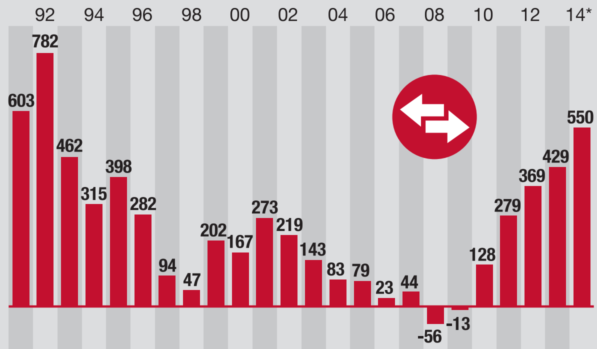
The raw numbers of people on the move in the late autumn of 2015 make a sobering audit. According to the EU compilation of figures 1.2 million migrants will have tried to get into Europe by the end of the year. The UN High Commission for Refugees puts the number of Syrian refugees outside the country at 3.5 million, with 6 million displaced inside the country. Local refugee monitors put the figure higher, up to 12 million of Syria's population displaced and over half set to move out of the country in the coming year. Some refugees are reported leaving the camps, so dire are conditions there – some even risking returning into Syria itself.

Meanwhile the flow of boats of migrants continues across the Mediterranean, despite the onset of winter. Around 200,000 are expected to have made the journey from Libya into Italy, and new routes are opening from Morocco and Tunisia.

Germany is now trying to restrict migrant arrivals with renewed border controls. Sweden is doing the same, the government stating it is finding it hard to accommodate the 200,000 who have arrived already this year. The eastern EU partners, Hungary, Poland, Slovenia, Slovakia

Increased Migration to Germany

Bar chart showing migration and emigration by the thousand



dpa·20978 *preliminary Source: Federal Statistical Office of Germany

2 The list of current armed conflicts compiled by Wikipedia, November 2015, from a variety of sources including the Uppsala Conflict Data programme is illustrative. Four continue to claim more than 10,000 fatalities, and 35 between 1,000 and 9,999 dead a year; some eight have been running for more than fifty years.

3 Walls, Borders, A Dome and Refugees, Op Ed by Thomas Friedman, NY Times 9 September 2015.

say they are equally challenged. Slovenia has to put razor wire barriers along its border with Croatia.

The UNHCR puts the number of refugees in the world now at 60 million. This is almost certainly an underestimate, as are most figures on migration. They are educated estimates at best. Few estimates are given of those who make it on to Europe's southern shores illegally, and manage to settle. This is a process that has been going on in present form for decades, across the unpatrolled beaches of Italy, Dalmatia, Greece and its islands. In 1980-81 Italy's interior minister Claudio Martelli recognised the phenomenon in a law named after him for temporary visas for the 'commuter migration,' across the Mediterranean. The maxim then was that for every migrant worker that could be identified there were at least two or three unidentified illegals in the shadows.[4]

The Syrian crisis has focused Europe's attention on the issue of economic, social and political migration, which has been under way for decades. The problem goes well beyond Syria and the Syrians. Among those that make the short but tricky boat passage from mainland Turkey to the Aegean islands, a high proportion has not been from Syria, but from Afghanistan, Bangladesh and beyond. They have learned to work the routes of passage, along routes to Europe established among others by drug traffickers. Informal networks of traffickers along the way aid them.

People movement – it is so obvious to the human and satellite surveillance eye now, it can hardly be called 'people smuggling ' – is a mainstream activity for the interlocking linkages of mafias across Europe, Asia and Africa. Much has been made of the need to smash the traffickers operations as if it is a 'catch all' solution. Most traffickers have short, highly active and not very beautiful lives. Here the parallel with the mafia operations of the Somali and Yemen pirates is instructive. Most of the leaders of pirate operations in the Indian Ocean had an effective working life of about three or four seasons at most, before removing themselves or being removed by superiors and rivals. They were expendable, and much the same goes for the people traffickers of the Mediterranean.[5]

The surge of migration in and around Europe is now playing high in the agenda of political debate. Parties proposing a brand nationalist isolation such as Geert Wilders Freedom party in the Netherlands, the Alternative For Germany, Marine Le Pen's National Front in France, and the UK Independence Party in Britain, are flourishing. They benefit from very real fears of governance and security, accentuated by the ISIS operations in Paris in mid November 2015.

"CLOSING OFF BORDERS AND CLOSING OFF MIGRATION FLOWS ARE MISSIONS IMPOSSIBLE"

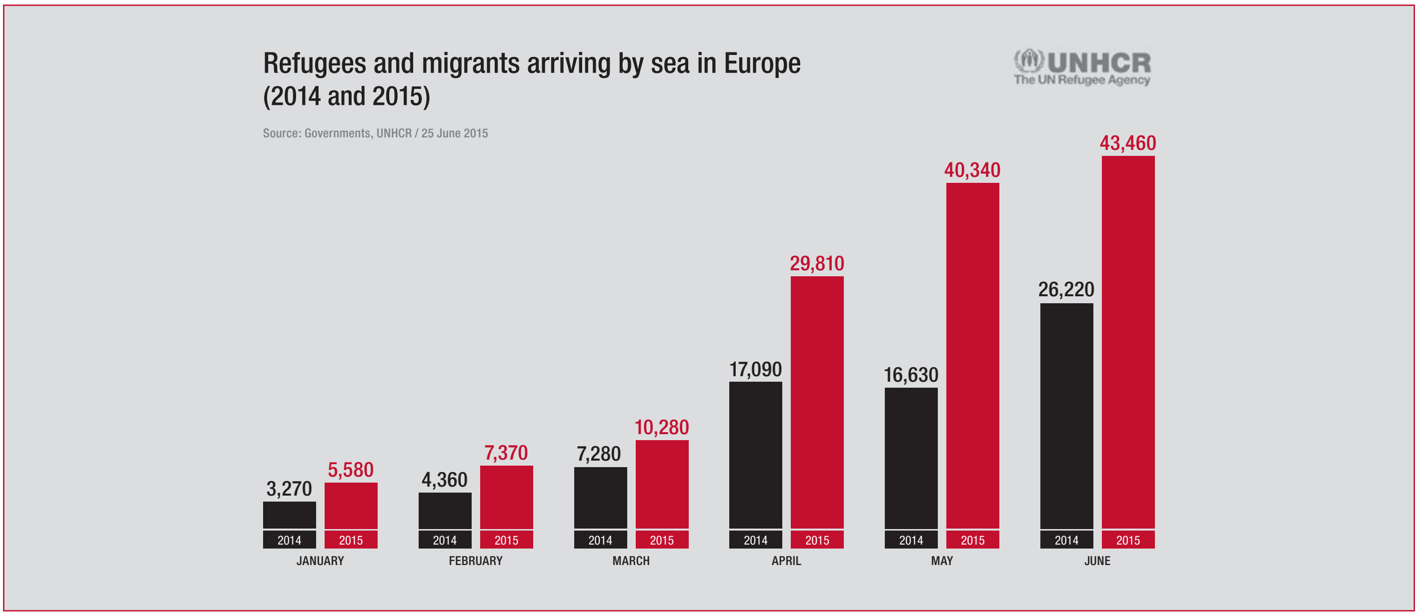
The cells of the ISIS terrorists headed by Abdelhamid Abaaoud appear to have moved between their training grounds in Syria and their targets in Europe by mixing quite easily with the migrant traffic. Another security issue is seen in the indications that refugee camps and ghettos in the new host countries are being used as incubators to radicalise and recruit new terrorists. This is neither easily ignored nor dealt with.

Closing off borders and closing off migration flows are missions impossible. It is something with which the governments of Europe are beginning to come to terms. In the summit of European 'north shore' leaders and leaders of 'south shore' African leaders in Malta in November 2015, the whole migration issue was aired in stark terms not heard before. But the remedies were hesitant and inadequate. The offer of €1.9 billion for improving governance in Africa looks less than timely, with no prospect of immediate effect on the migration outflow and very little in the longer term. The UK government's offer of £275m for the refugee camps in Turkey over three years looks like Band Aid for just a few short-term symptoms of the problem.

4 I tackle the problem of counting legal and illegal migrants in The Inner Sea, The Mediterranean and Its people, Knopf 1993, which addresses the new waves of migration then already under way across the Mediterranean.

5 I am grateful for a series of private conversations about this during the summer of 2015 with the head of Britain's Royal Navy, Admiral Sir George Zambellas.

Refugees and migrants arriving by sea in Europe



The Mediterranean represents a startling paradigm of the great migration and population phenomenon of the 21st century – but it is far from the only one. It combines the converging demographic, governance and security crises of three continents, and can only be mitigated or resolved by international initiatives on a continental scale.

Other great swirls and vortices of migration and popular movement are now gathering across the steppe and the new Silk Route, in West and sub-Equatorial Africa, as well as to and through the great city ports of the southern Asian littoral. Some of these are the new monster cities, megalopoli, each as big as a medium size state – the likes of Mexico City, Cairo, the Sao Paolo-Rio sprawl, Shanghai or Mumbai. They present problems of displacement, population shift and abandonment from immigration to them and migration within the chaotic organism.

The down side to the phenomenon is the prospect of sheer wastage of human talent and human lives even. Millions of people face marginalization and statelessness, undervalued and underemployed vagrants on the fringes of society.

The crisis, which is now here in our midst, needs a gradualist and evolutionary approach to remedy on several fronts, including civic governance and leadership, security, education and effective investment in points of departure – wherever that may be feasible, practical and profitable. This is the approach proposed by Professor Sir Paul Collier, who is now a leader in the migration debate.[6]

Governments need to follow the Collier script in investing in realistic productive development projects, governance and education and hard power security strategies for today and the future, and not harking back to doctrines and postures of the past. They must combine, share and cooperate on an international basis. Too much is being offered on a party political and parochially national basis. Even the generous £12 billion British overseas development and aid budget is being dispensed to an almost casual short-term political timetable.

The crisis and conundrum of migration and movement is set to preoccupy us all for a century to come. It is already with us, and needs to be addressed in the terms it requires here and now.

Robert Fox is Defence Correspondent for the *London Evening Standard* and author of *The Inner Sea: The Mediterranean and Its People*. He is currently researching a book on migration.

6 Exodus – Immigration and Multiculturalism in the 21st Century, Penguin London 2015 is his new essay on the problem. See also his groundbreaking The Bottom Billion, London 2007.

THE ECONOMICS OF TRANSPORT: FROM TRAINS AND BOATS AND PLANES – TO THE CLOUD

DAVID BLAKE

The routes which take people to places and things to people are what make the economy possible. Without them the economy cannot advance, since even the greatest invention has no worth if it cannot reach its markets.

In the postwar world, transport along the trade routes has been improved. In the process, it has changed its nature. Instead of being just the servant of industry it has become a crucial part of the industrial process. The supply chain is so reliable that production can be split around the world. It has morphed into a Global Value Chain.

This has led for the first time to the emergence of a truly global system of production. There is nothing new in the import of raw materials to be processed in another country. The first Industrial Revolution transported cotton across the ocean to meet coal in Lancashire for the textile industry. What is new now, and is a result of the globalisation of corporations, is that designs are made in one place, components in another and they are fitted together to a final product which is then marketed in a third place – often the country where the design originated – while the money earned ends up in yet another centre.

This complex system is quite new. It would have surprised Adam Smith, often seen as the prophet of trade. Smith used the phrase “invisible hand” only once in The Wealth of Nations, and this was to say that the risks of spreading activity in this way were so great that it would never become a threat to home producers. Lack of trust would always keep businesses close to home, not daring to spread their activities round the world. And the dangers of travel would act as a further block. It has taken huge physical investment, inventiveness and changes in the laws of nations to make that warning outdated.

The inventiveness came first. From earliest times, man had learned to float on water and to turn it from a barrier into a route capable of carrying heavy loads with little effort. First on the great rivers of the Near East and then on the Mediterranean, a western system of water transport emerged. But it only took people where the water wanted them to go. The first great breakthrough came as man first tamed and then built his own rivers – the canal system which made possible the transport of goods across long distances on land. Both in Europe and North America the canals were crucial. In North America, the Erie canal turned New York into the entrepot for people and goods, soon eclipsing all the other cities on the East coast. In Britain, the canal system was one of the most highly developed in Europe allowing goods made in the midlands or north to reach either sea or markets in the south. Firms such as Wedgwood became first national then international enterprises because the canals made them so.

But this was just an appetiser for the great revolution, the rise of the railways. As these spread across most of the world, huge changes occurred in the sourcing of materials. Not everyone welcomed this archetypal symbol of the modern world. The Duke of Wellington was against them because they would “encourage the lower classes to move about”, something which lies behind much snobbish objection to package air holidays today. (His objections did not, however, prevent him making a lot of money later out of some smart speculations in rail shares.)

As with all moving goods, rail made possible the modern city. In the first place it allowed cities to reach out over a much greater distance for food to nourish their populations. And secondly it allowed people to live miles from their workplace. Even cities which we associate most intimately with the motor car, such as Los Angeles, owed their basic form to commuter rail systems.

Adam Smith gave as his best example of the bar that transport posed to imports the experience of the cattle trade. By the time the stock had been walked to market they had lost so much weight they could not compete with local produce. The Irish pig industry had the same difficulty, because as they walked to London the pigs got leaner and fitter. So they stopped on the way in around Chippenham, where there was ample fattening material available in the form of whey left over from cheesemaking. And rather than let them walk all that extra weight off, somebody had the brilliant idea of killing them and curing them there. Which is how Wiltshire bacon was born.

The rise of big cities has been one of the great trends of recent years, and one which few forecast. Without a renewed wave of mostly rail-based infrastructure this would not have been possible.

The mid 19th century saw the first great transformation of travel. Rail and steamships opened the grain fields of the American Midwest, in the process devastating much of European agriculture every bit as effectively as more recent developments have devastated manufacturing. With the opening of the Suez Canal came another great step forward in linking the world together. As often happened in the progress of transport, the canal brought technical change in its wake and shifted activity. The last gasp of the sailing ship was the development of the Tea Clipper, super-fast sailing ships bringing tea from Asia round the Cape of Good Hope to England. But sailing ships could not navigate the Canal, so these ships were suddenly obsolete.

The Suez Canal brought with it two great shifts in geography. The natal drift of sailing ships round the Cape from Europe took them on to Calcutta; now, the Canal ensured the rise of Bombay to its dominant position. And in Europe, Britain lost its role as the entrepot for all trade from the East.

A little before the Canal opened, the other link in the chain knitting the world together was the completion of the Transcontinental railway in the US. The uneven process of progressing along this chain is shown dramatically in Verne's Around the World in Eighty Days, with constant breakdowns and troubles. But it could be done. To a 19th Century audience the achievement was as dramatic as flying was later to prove in the 20th Century. Where people moved, so did things. Trade meant transport of raw materials and finished products to a world suddenly freed.

The changes this brought about were famously celebrated by Keynes who wrote that, by 1913, "The inhabitant of London could order by telephone, sipping his morning tea in bed, the various products of the whole earth, in such quantity as he might see fit, and reasonably expect their early delivery upon his doorstep." But what Keynes wrote about for the consumer concealed a world where much less had changed for the producer. Goods which came stamped with their place of origin all still came from that place. A child's toy stamped "Made in Germany" had parts made in Germany, usually fitted together near the place where the parts were made. The owner of the factory probably employed a design department, situated in an office next to the factory. The labour cost of actually making the product accounted for a very high proportion of the final cost.

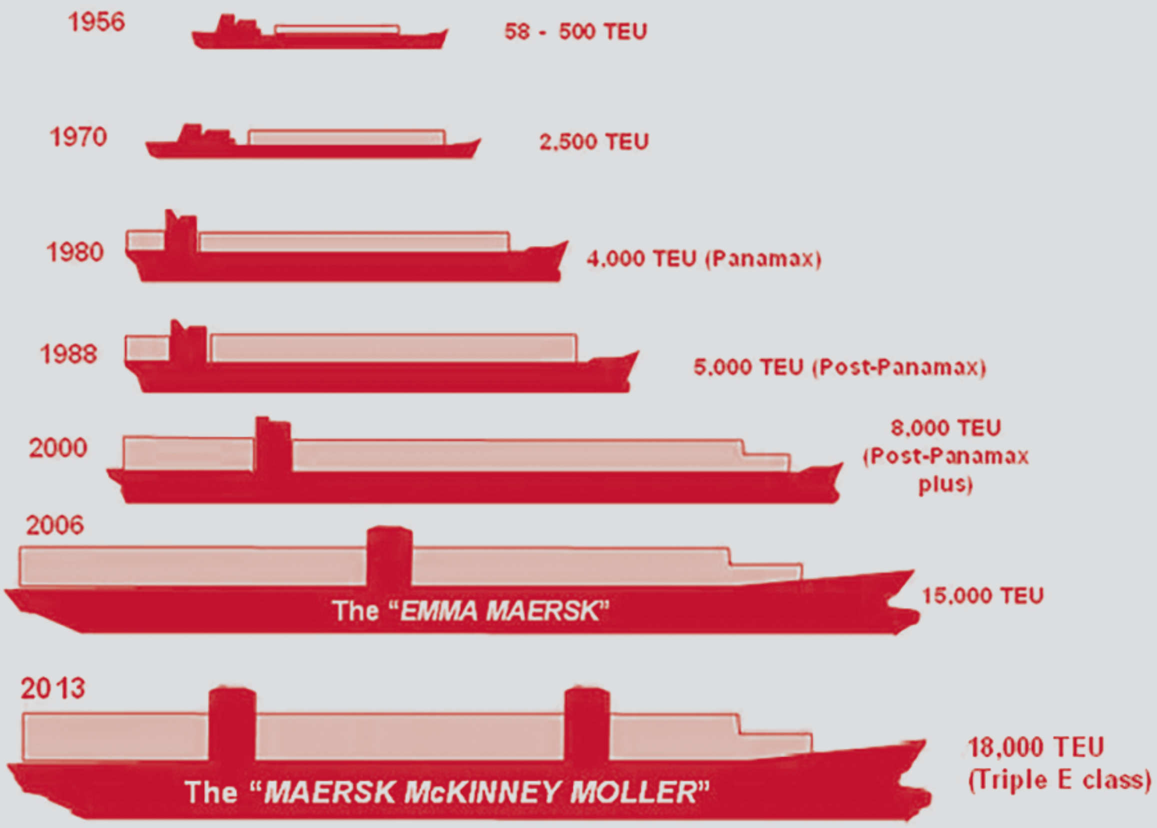
"THE SILK ROAD RAIL SYSTEM PROVIDES FAR QUICKER ACCESS TO EUROPEAN MARKETS THAN SHIP"

Contrast that with an iPhone today. The box says "Made in China" and that is where it is put together. But the components come from a huge range of locations. Around 200,000 people work making iPhones and iPads. None of them work for Apple. Instead, huge companies have emerged acting as subcontractors for Apple and the other global giants. Offshoring production has devastated traditional manufacturing in the west, unable to compete with low labour costs. And that in turn has exerted continuing downward pressure on wages for many workers in the west.

High value products like phones can afford to use high cost means of transport such as aircraft. But a huge part of the latest revolution has involved low-tech items with low prices taking advantage of cheap labour in Asia and elsewhere. And here it has been huge progress in the growth of modern shipping which has led the way.

Even in the early 1960's there were signs that cheap shipping could provide a crucial advantage for low-cost producers in Asia. Japanese car manufacturers beginning their first cautious assault on the US market discovered they had an unexpected advantage. Ships could deliver a car from Tokyo to California

The growth of container ships



TEU stands for Twenty-Foot Equivalent Unit which can be used to measure a ship's cargo carrying capacity. The dimensions of one TEU are equal to that of a standard 20' shipping container, 20 feet long, 8 feet tall

Source: Dedola Global Logistics

at much lower prices than US car manufacturers could move their vehicles from Detroit.

That advantage spread to other goods as container ships emerged in the 1960's and then became ever bigger. As the ships get bigger, the demands they place on infrastructure grow too. Ports are spending enormous sums to allow the biggest vessels to enter and unload. The Suez Canal has been doubled in size and its Central American twin in Panama is also undergoing huge expansion.

One effect of this reliance on cheap sea transport has been to trap much of Asia's economic development on the coast. The same high costs of land transport that initially aided Asian producers now make it expensive to move away from the congested coastal strip. For really high value products air transport is viable. Now, however, China is to use surface transport to Europe as a way of encouraging development far inland. The Silk Road rail system provides far quicker access to European markets than ship; more important, it rules out the need for a long journey to the coast.

Until the financial crisis, the most striking feature of the post war economy was that trade grew faster than the economy as a whole. And that in turn meant the need for transport increased faster than the economy as a whole. In the past few years that has reversed. Are we seeing the end of the Golden Age of transport growth?

That really depends on two things. First is whether the world is turning away from free trade to creeping protectionism. There are many warnings about this now, as there have been in the past, but little real sign that it is happening.

There is another, subtler threat which comes from the rise of the service economy. Traditional routes moves things or people. But much action now is done electronically without anyone moving. Working at home over the internet eats into the need to travel to a fixed workplace. Changing consumption patterns mean people spend less on things which need to be moved and more on services. It is why shops are facing an increasingly difficult future.

Ten years ago Netflix was a heavy user of courier services to deliver DVDs to clients; now they are downloaded over the internet. And so we see the rise of the latest route which matters: the network of cables round the globe carrying an ever rising tide of information.

There is nothing new about electronic communication. The transatlantic telegraph cable is almost as old as regular transatlantic steamers. But what is new is the volume of data which can flood over the system. It is along these cables that the Cloud streams between the servers speed round the world. Futurists sometimes dream up extreme impacts as a result of these new developments. But the reality is that moving people and things is likely to remain crucial to the world's progress. The new technologies will live in symbiosis with transport, not replace it.

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FINANCING INFRASTRUCTURE: WHO FOOTS THE BILL?

BRIDGET ROSEWELL

Herodotus in his history[1] described the use of the east west route now known as the Silk Route: 'There is nothing in the world that travels faster than these Persian couriers. Neither snow, nor rain, nor heat, nor darkness of night prevents these couriers from completing their designated stages with utmost speed'. If these words seem familiar it is because they became the motto of the United States postal service and can be found carved on their many buildings.

This earliest of major links was thus created and maintained to enable imperial management, much as the Roman Empire later created roads to manage and control its territorial holdings. It's therefore almost impossible to think about infrastructure without also thinking about some kind of government. These earliest roads were created largely for military purposes and paid for by exactions and loot.

However, such roads also had unintended consequences. They made possible trade and the exchange of ideas, of disease and of economies of scale. They created cities – which in turn required other infrastructure: of food production, water, sewage, and building control. The challenge in Monty Python's Life of Brian ends up with this: 'All right… all right… but apart from better sanitation and medicine and education and irrigation and public health and roads and a freshwater system and baths and public order… what have the Romans done for us?' And the final answer was 'Peace'!

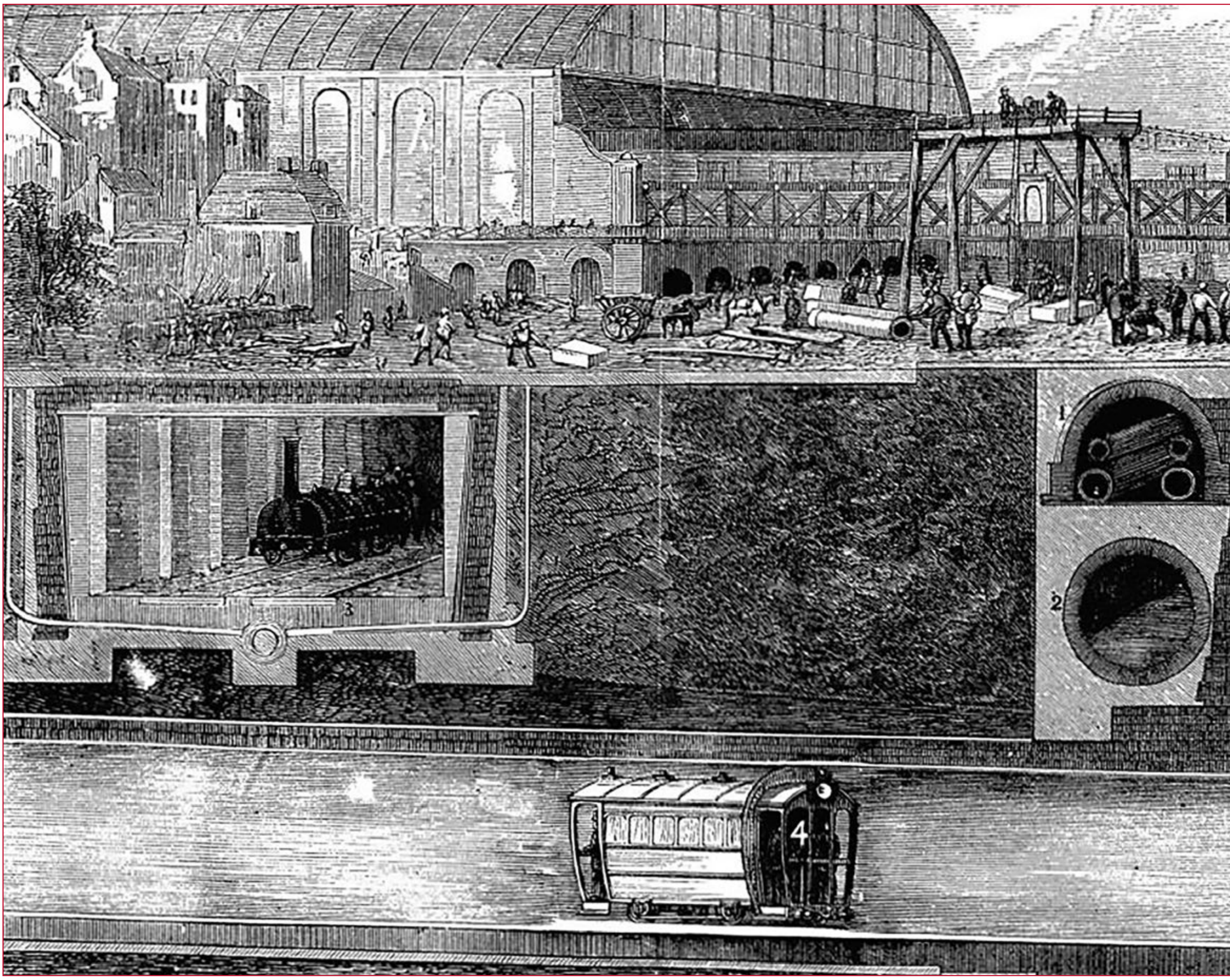
When the Mongol invasions spread across Asia and fatally undermined first the Northern and then the Southern Song Empires, it took them some while to repurpose the infrastructure of these societies. Ghengis Khan had to be persuaded of the usefulness of populations that could be taxed (and looted) to support further invasions – and the logistical infrastructure needed to support them. But persuaded he was.

These examples are all about how physical infrastructure to support conquest and maintain power is created by either exaction or just as likely by forced labour. Unintended benefits could also be taxed, but trade was definitely a third class activity and in the Chinese empires merchants came below administrators and craftsmen.

Of course all this pre-dates capitalism, so perhaps things have changed in how infrastructure is either planned or financed. The Canal du Midi was opened in 1682, and thus on the cusp of the modern world. The motivation was security of both supply and trade as well as political power. The Minster of Finance, Colbert, in 1660 saw benefits in connecting the Atlantic and the Mediterranean through France rather than having to pass through the Straits of Gibraltar. So the aim was to undermine Spanish trade and improve access to the Languedoc. Since this area had been hard to tax and rebellious, the canal was also seen as a royal project to enable stronger control of the region. The proposal to construct the canal came from the collector of salt taxes Pierre-Paul Riquet, who clearly saw this as a way to improve his market access. The Languedoc region also had resources such as wheat, wine, woollen cloth, silk and salt which producers were struggling to export due to lack of trade. By creating the Canal du Midi, Colbert hoped to distribute goods; this would in turn strengthen royal power and open up Toulouse and its region.

This should sound familiar. It was a build and operate franchise, with Riquet offering to provide part of the finance and build the canal in return for the right to take tolls. The rest was to be paid by the State and payback was from the hypothecation of the salt tax which Riquet would then be able to collect. The Riquet family retained control over the canal for several centuries and grew rich.

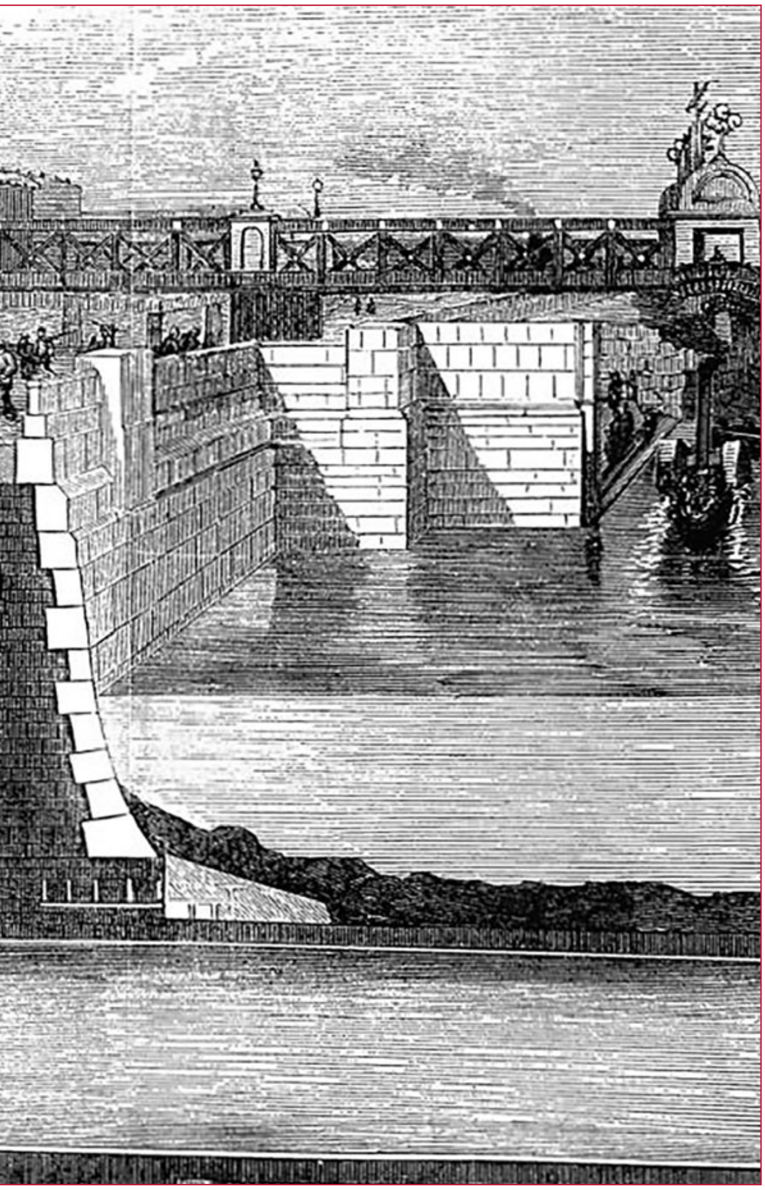
1 Herodotus (c440BC), Histories



Here then is a project which has many of the features which we might expect in more modern times. Yet it has both political and power motivations as well as market and private motivation. That was the 17th century. What of succeeding ones? The prime example of privately motivated and financed infrastructure is the railway development in the UK. Individual railways were put forward by groups of entrepreneurs, though each required an Act of Parliament to make them possible. Most (though not all) lost their shareholders' money but created unparalleled benefits for their users, both the manufacturers for whom they were mostly originally built and the passengers who eventually created larger cities and longer commutes using them.

A similar process occurred in the USA, where the gains were more easily captured by the railway companies and their owners, who were able to create monopolies for a time. Vanderbilt, Stanford, Hopkins, Crocker and Huntington are all names with a modern resonance from this period. By contrast, in continental Europe, railways were more often proposed by state institutions, though frequently financed by international investors. And there was a railway king, Bethel Henry Strousberg[2]. Here too

2 R Roth and G Dinhobl (ed), 2008 Across the Borders: Financing the World's Railways in the Nineteenth and Twentieth Centuries, Ashgate



there were similarities with the Colbert canals in that government was a major player with some of its own political objectives. But there is also a more modern twist in that government began to provide guarantees of returns to the investors who were providing the capital. This presages the Regulated Asset Base and Public Private Partnerships of our own day.

Some themes emerge. There is the process of deciding on a piece of infrastructure and its motivation; there is the process of raising money to build it; and there is the process of paying back on this debt. These can be seen in microcosm in a UK example: building sewers for London in the 1860s.

The spur to their construction was the Great Stink of 1858 when hot weather combined with untreated sewage from a fast growing city to produce a hellish atmosphere. Joseph Bazalgette was asked by the city government to come up with an answer. He designed a system with built in resilience, based on an estimate of need which started with the effluent from the most densely populated part of London, assumed the rest was as dense, and then doubled the answer. The result was a system which has lasted into the 21st century and is only now being reinvested with a new tunnel down the river. Moreover, as the illustration shows, (Figure 1), he took the opportunity to build out embankments to contain not only his sewers but also the new underground railway. The northern riverbank was massively enhanced. This was a municipal investment, but covered by a government guarantee which permitted the Metropolitan Board of Works to borrow first £3m and then a further £1.3m. The revenues to repay this loan were both a levy on households, and the wine and coal duties which had been allocated to the Board. These duties had first been set in place to pay for the rebuilding of London after the Great Fire in 1666. They were finally abolished in 1899.

Bringing this story through to the present day, the new Thames sewer is shortly to go into construction managed by a company named after Bazalgette. It will be financed in the markets, issuing bonds which have cover from government guarantees. These bonds will be repaid by the charges on households in the Thames Water area. In other words, little has changed in the arrangements.

What has changed is the decision making process, at least in Western economies. The 20th century saw the rise of the economics profession alongside a particular view of the way in which economies work – or should work. This might be called the planning fallacy and is shared across both left and right wings. It consists of the view that it is possible to model and describe an optimal allocation of resources. Left wing versions want to apply such a description top down, while right wing versions believe that ‘markets’ supply this. Neither works well. In the case of the new Thames sewer, considerable resource went into the analysis of the ‘willingness to pay’ of a consumer for better sewage – a study that might have shocked Bazalgette and which certainly tried to provide an optimal amount of sewage disposal for the future, even though that future is uncertain. Nothing like the resilience of the original solution.

A little-noticed implication of this approach is that economic performance is independent of infrastructure

– it will happen anyway and the infrastructure merely provides welfare benefits such as time savings from transport or better health from clean water. This dominant view, at least in Anglo-Saxon systems, led to political decision making trumping any form of analysis, combined with a neglect of existing systems and maintenance requirements. In the UK, high-speed rail became an afterthought to the Channel Tunnel, while on the continent it was based more on principles and politics. Yet without infrastructure an economy cannot exist.

It is no surprise that China is constructing a further 20 million kilometres of high-speed rail, as well as opening more runways and airports. By 2014, China was generating more electricity than the US although this is still much less per head. In the mid-1990s power generation was moved under the control of monopoly state-owned corporations; the subsequent twenty years has seen slow steps towards more liberalisation of these monopolies and policies to split generation and distribution and to increase competition.

At first sight, this is a different model from that used to create the market infrastructure in the West. Underneath it has significant similarities. US railroads were, it is true, private companies. But international investors were eager to provide the capital to make this happen, and Henry Paulson describes this race to do the same in China with drama and chutzpah in his book, Dealing with China[3]. Cynics might think that Goldman Sachs was merel y after the fees, but funds were, as ever, seeking the returns that were on offer on such investments as new countries began to take advantage of trading opportunities and needed the infrastructure to go with it. Once again it helped to have a government guaranteeing the returns and the monopoly.

Infrastructure has elements of being a public good where my use of it does not restrict yours. The capacity of a network may be limited but up to the point of congestion adding a new user has little cost. Roads are a quintessential example of this and it is hard to restrict access to the system completely. But toll roads have come into being in many ways from 18th century Turnpike Trusts to modern motorway systems. Charges for access to electricity distribution, to canals, to water supplies, to sewers, to roads, to rail and to telecommunications are everywhere prevalent. In principle there is no reason why the charges should not recoup the costs of the investment.

However, such networks are also monopolies which are likely to restrict supply and to overcharge the marginal consumer. It is not surprising that governments get involved in planning, regulating and owning such networks. Once government is in control it has a tendency to believe it knows best and that subsidies are necessary.

And this has been universal through history. From Roman roads to Colbert's canals through railways to power systems, governments have borrowed or printed money and exacted taxation to pay for infrastructure, even where there is the possibility of restricting access by fees and charges. The challenge that we all face is to balance access for all to a network which only becomes expensive under congestion, against the charges which prevent congestion and also pay for the finance to build the infrastructure in the first place.

The case for Crossrail in London provided a variety of forms of financial return. Fares are expected to cover operating and maintenance costs plus a contribution to capital, while specific contributions and taxes will cover most of the remainder. It's much like Bazalgette's sewers, and I expect the benefit to well outlast the payback period. Railways, like sewers, can last 150 years – and counting.

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3 H M Paulson, (2014) Dealing with China, Headline, London

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