

The world food availability outlook gives many people cause for concern. For, while the world population is expected to grow by 40% over the next few decades, there are finite limits to the land suitable for food production¹ & the amount of water available for irrigation². And to complicate matters further there is a dietary trend in the emerging economies towards more animal protein consumption³ (an sub-optimal use of grain), and urbanization & industrialization have been, & still are, gobbling up more & more of the world's most productive farm land. GM advocates use these facts to promote 'Frankenfoods' as the solution. But there are simpler, more sustainable, and lower-tech & common sense ones to address the problem :

- **Waste less food** - Worldwide 40% of all food produced is wasted, in the developing world due to a lack of infrastructure (storage facilities to store it **until** needed, & roads to move it in a timely fashion from where it's produced to where it is needed⁴), and in the developed world because it is allowed to spoil before it's used⁵;
- **Using irrigation water more efficiently** - Up to half of the water used in irrigation is lost to evaporation (& in warm climates the commonly-used "sprinkler" irrigation technology can increase this to two-thirds). And while the water may evaporate, its salt content doesn't; so the greater the evaporation losses, the faster the rate of soil salinization (an ever growing problem; as much as one-third of the world's irrigated farm land is now affected to some degree by fertility-reducing salinization);
- **Reversing the trend to bigger & bigger factory farms** - They account for 70% of all farm inputs other than labour but produce only 30% of all food;
- **A move to a 100-mile diet mindset** - Food today is hauled long distances from where it is produced to satisfy the wants, not needs, of consumers in developed countries (& increasingly the growing middle classes elsewhere) - *in an era of governments desperate for revenues & of a greater emphasis on the 'user-pay' principle, this suggests*

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Matters are also complicated by our farming forefathers settling in places where the land was most fertile & easiest to cultivate. So most, if not all, the world's major cities are sited in areas of predominantly "Class 1" soils which urbanization & industrialization has caused, & is continuing to cause, to be 'blacktopped' over & lost to food production, and replaced in the food production land base with less fertile land.

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While irrigated land accounts for 20% of the world's agricultural land base, it accounts for 40% of global food production.

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In Indonesia, for instance, beef consumption has been growing at 15% annually.

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Which, incidentally, could have a "collateral benefit" effect of raising farm incomes.

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In the US in 2011 4% of all apples produced are 'lost' between the farm gate & the retail outlet, 12% at the retail level before sold to consumers & 29% at the household level. And in 2006 at the retail level the wastage rate for fresh fruit was 8.4% (ranging from 51% for papayas to 4.9% for cherries), for fresh veggies 19.6% (60.7% for mustard greens & 0.6% for sweet corn), for meat & poultry 4.5% (27.8% for veal & 4.0% for turkey), for fish & shellfish 8.9% (9.2% for the latter & 8.6% for the former) - *while the last-mentioned may seem surprising low, it is likely due to most of it being frozen, rather than "fresh"*.

the potential, if not desirability, of a 'luxury tax' on food stuffs other than staples, transported further than, say, 1,000 miles from the farm gate;

- **Changing the focus in plant research** - A decade or so ago, the Florida state agency responsible for such matters compared the nutrient content of 47 varieties of fruits & vegetables then in common use among commercial growers with those 50 years earlier & found that **on average** it was 40% lower now than it had been then⁶. Plant research now is driven by production-, & market-oriented-, factors such as eye appeal, even ripening, ease of harvesting & ability to withstand long-distance travel, ignoring nutrient content as an immaterial factor that would just increase the complexity of research.

Shrinkage is a food industry concept measuring the difference between the product that comes **in** over the loading dock but doesn't go **out** at the cash register. The 2013 Supermarket Shrinkage Survey noted that 36% of it is due to "theft and misdeeds", over half of it by shoplifters (who cost the industry US\$51.63 for every American man, woman & child), & over one-third by cashier error or fraud (mostly by employees of < one year). Elsewhere it was noted that up to one-seventh of all fresh food delivered to supermarkets gets thrown out (& costs money to get rid of). In America cheese has the highest shoplifting rate (3.09%), followed by fresh meat (2.79%) & chocolate/candy (2.78%) while globally the 3.60% pilfering rate for chocolate/candy was No. 1, followed by infant formula, luxury cooked meats, alcohol & cheese.

The OECD's PISA (Programme for International Student Assessment) rankings has sometimes been called "The Olympics of Education", to the distress of many educational vested interests in America whose 15 year-olds haven't been placing well in its triennial global 'league tables' (14th in reading, 17th in science & 25th in math⁷ in 2009 (although this was disputed by a Stanford researcher who claims it should have been 6th in reading & 13th in math). In advance of PISA's recent publication of its 2012 results the Globe and Mail interviewed Andreas Schleicher, the OECD's Deputy Director for Education & Skills responsible for PISA with great influence on education ministers worldwide. His more interesting insights were that students in high-performing countries attribute their success to hard work, not intelligence and that, while for interested parties in many countries class size is the be all & end all, high-performing countries prioritize teacher quality over class size : "most high-performing education systems have quite large classes and focus their resources instead on the quality of teachers."

Not by coincidence, Fareed Zakaria in his December 1st CNN program featured, among others, Amanda Ripley, the author of a NYT best seller entitled The Smartest Kids in the World and

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There are two intriguing aspects to this. One is macro-economic : higher nutrient value food stuffs would have significantly reduced the amount of them that would have been needed to meet the nation's nutritional needs. And the other is public health-related, the extent to which obesity might have been even more of a problem than is the case today

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The latter two have particularly ominous potential implications in an increasingly hi-tech global economy. American universities have long failed to produce enough graduates in the STEM (Science, Technology, Engineering & Math) disciplines for the US economy's-, & their own -, needs, creating a dependence on foreign-born, but US-trained, scientists. But while in the past many these people stayed in the US after completing their training these days they seem to find the grass greener-, career opportunities better-, & life styles more appealing elsewhere; so they aren't staying, at a short-term financial-, and long-term competitive-, cost to the US economy.

How They Got There. It chronicles the experience of three American teenagers who for one year went to school, in respectively Finland (consistently at, or near, the top in the PISA standings), South Korea (typically not far behind Finland) & Poland (that, while nowhere near the top, in the previous decade had improved its standing from well below the OECD average to one on a par with the US). She calls Finland's model "Utopian", de-emphasizing home work & prioritizing quality over quantity, South Korea's a "pressure cooker" with an extreme emphasis on long hours & home work, & Poland's "metamorphous", an example of how, with the right priorities & policies, educational systems can improve quite quickly. She traces Finland's success back to its 1960's decision to close its teachers colleges & concentrate teacher training in its top universities, and to having high standards for aspiring teachers (they are drawn from the top one-third intelligence-wise within their age cohort - "in Finland getting into education in university is about as hard as getting into MIT in the US" -, rather than from the bottom one-third as often the case in North America (which, she claims, also has an important "signaling effect" for students *that teachers are people to be looked up to*). She ignored the South Korean model as one few people would wish for their children. And she used the Polish system as proof that 'if there is a will, there is a way' *not mentioning that one of its key reforms had been to replace the system of setting teachers' salaries by years of service with one based on work loads & performance*). Two other things she observed in their highly effective educational systems were an acceptance by students that "school was hard" & an absence of organized sports in schools; for their shtick is education & sports should be part of students' 'after-school hours' activities⁸.

St. Louis, Missouri-based Washington University is a smallish, highly regarded research university. The Pittsburgh Post-Gazette reported on a study done by it on the energy expended by school children during phys.ed. classes & during recess. It outfitted 106 children with pedometers & found that when kids are given free rein to play during recess, boys on average took 55% -, & girls 41%-, more steps during recess than during phys. ed. - *so much for claims kids need more gym in their curriculum; on the other hand, many schools won't give kids "free rein" during recess for fear they might get too rough, kids will get hurt & parents will sue them*.

The Guardian recently reported paying political figures too generous salaries may affect their work ethic negatively. It based this on a study by Louisiana State University's Naci Mocan & Auburn University's Duha Altindag of the attendance record of members of the European Parliament between 2006 & 2006. For they found that those MEPs who had received raises attended fewer meetings, while those whose pay was cut actually attended more - *this goes counter the CW that 'to get good people you must pay well'; for in practice it tends to attract self-serving money grubbers rather than those whose priority is job satisfaction*.

Recent research by Bethesda, Md-based Child Trends found that unsafe sexual practices have resulted in 40% of US females in the 14-19 age cohort having an STD (sexually transmitted disease). It deems it ironic that parents who are hyper-sensitive about the health of their young children seem insensitive to the reality of STDs among their teenage daughters (*or lack a sound enough relationship with them to impart, & have them take advantage of, "good" information?*)

A baby is born in the US every 8-, a death occurs every 12-, & an immigrant enters the US every 16-, seconds. Hence the US' rapid rate of population growth & growing racial diversity.

Last spring Prime Minister Harper parachuted EDC President Stephen Poloz into the Bank of Canada to replace now Bank of England Governor Mark Carney (*the third time in a row an 'outsider' has been appointed to the post*). As expected, Senior Deputy Governor Tiff Macklem is now leaving, to join the University of Toronto as Dean of its Rotman School of Business - *in financial terms this may well be a smart move since he likely had maxed out, or was close to maxing out, the 85 year⁹ threshold on his \$200,000+ pension entitlement. His departure will leave a big hole; for his Rolodex of contacts in the global central banking fraternity was likely larger, & certainly longer-dated, than Carney's, while Poloz's is commercial-, than central bank-, oriented. And at times of crises it would have been useful to still have Macklem onside when central bankers circled the wagons. The only intriguing thing is his career choice; for he had a huge, worldwide marketable potential; but perhaps, after 31 years in a pressure cooker, he wanted to gear down and/or start sharing his 'corporate memory'.*

Prof. Markus Moos of the University of Waterloo has studied income trends for young Canadians aged 25 to 34. The 1981 & 2006 Censuses told him that, whereas in 1981 in Vancouver they had earned \$38,335 in 2006 dollars, & in Montreal \$34,633, by 2006 that had declined by 9.7% & 11.8% respectively to \$31,844 & \$30,555 - *and that was before the Great Recession & doesn't take into account any erosion in the value of their benefit packages.*

A small Halifax company, LED Roadway Lighting Ltd., an international leader in LED roadway lighting, has grown in six years to employing over 200 people, has systems in operation in at last report 37 countries, mostly in the Caribbean & Latin America, but also Britain & Australia, but not in the US where, despite NAFTA, governments' "Buy American" provisions are an obstacle to entry. LED lighting is free from harmful substances, such as lead & mercury, is durable & low-maintenance, and lowers energy costs by up to 60% (another reason inhibiting sales in North America for power costs are much lower there than in the Caribbean; on the other hand, countries there often don't have the ready cash to invest in LED lighting).

Another small Canadian company, this one a start-up in Saskatchewan, Saskatoon-based Deep Earth Energy Production Corp., wants to become that province's first geothermal energy producer by using age-old technology to tap into a three mile-deep, 40,000 square kilometre hot aquifer near the Southeastern Saskatchewan city of Estevan (*currently better known as the Canadian hotbed for Bakken oil production*), where it wants to build a 5MW pilot plant. While it may be onto something, for geothermal power is 'around-the-clock' base power, it has relatively high upfront costs & most provinces & territories in Canada don't allow geothermal projects. Nevertheless, a Calgary-based group, the Canadian Geothermal Energy Association (CanGEA) says that, if the government were to help the industry gain critical mass, Canada could have 5,000 MW of geothermal capacity in place by 2025 [the US is currently the world leader with 3,389 MW of installed capacity, while there are three countries that depend on geothermal power for a significant share of their energy needs : Philippines (1,894 MW - 27%), Iceland (664 MW - 30%) & El Salvador (204MW - 25%). And another start-up, Burnaby, BC-based International Waste Water Systems has developed a system for recovering heat from waste water in sewers (with typically a temperature of 20-25° Celsius) to provide base power (a 2005 US Department of Energy study estimated 350BN KWh-worth of heat energy (*10% of the country's total annual electricity consumption*) is flushed down the country's sewers each year.

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Age plus years of service.

Doctors at Tel Aviv's Meir Medical Centre noticed that many patients with chronic headaches were gum chewers. So they experimented by having 30 patients quit the habit & found that 26 reported a significant improvement in their headache situation, with 19 having "a complete headache resolution", and that the 20 who resumed gum chewing reported an immediate return of their headache symptoms.

A new hotel is being built 30 miles outside Shanghai in the side of an abandoned quarry. The InterContinental Shimao Shanghai Wonderland Hotel will cost US\$500+MM, open in 2014, have three above-, & 16 below-, ground levels, be surrounded by an amusement park & overlook a lake at the bottom of the quarry - *there are some neat pictures on the Internet.*

Untrammled money creation in Germany's Weimar Republic in the early 1920's¹⁰ led to a period of hyper inflation in which bank notes literally were no longer worth the paper they were printed on (a mini version of which occurred in Zimbabwe a few years ago; it now uses the US\$ as its currency)¹¹. The following quantifies the evolution of that hyper inflation : the price of an item that cost one Mark in 1918 at the end of WW I, by July 1, 1922 cost 100 Marks, 100,000 Marks a little over one year later, 100MM on October 3rd, 1923, 10BN three weeks later, 1 TR by month's end, & 400 Quintillion (400,000,000,000,000,000,000) before the central bank stepped in & started issuing a new currency.

Danish ship owner Maersk is best known for its giant-sized containerships with their distinctive baby-blue hulls. But it is also a major player in the offshore oil & gas business. Recently it christened the first of four "ultra deepwater" drill ships being built for it at Samsung's shipyard in Busan, South Korea at a cost of US\$650MM each. It can operate in water 3,000 meter deep & then drill another 12,000 metres (40,000 feet)¹² into the earth's crust, is equipped with a six-thruster system that allows it to continue drilling in seas as high as 9 metres (30 feet) & is contracted to ExxonMobil for use in the Gulf of Mexico. The Asian shipbuilding market has differentiated. South Korea & Singapore have gone 'upscale', building expensive & complex vessels, and have developed a reputation for timely delivery, while the more numerous Chinese shipyards serve the low value-added, generic bulk carrier market, are tardy in delivery & compete on the basis of cut-rate pricing & irresistible financing terms. So, while China in the year to June 30th got orders for more gross tonnage, South Korea's order book had a 76% greater value. To make matters worse for China, demand for lower value-added new-builds has been in the doldrums, while that for upscale ones has been booming, and the sharp increase in Chinese wage levels may soon undermine its competitiveness even in that market.

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that, incidentally, was a byproduct of (or what today would be called 'collateral damage') from the punitive 1919 Versailles Peace Treaty and was one of the root causes of the rise of Hitler & WW II - *please take note Bibi Netanyahu & fellow hardliners on Iran!*

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By all appearances the sanctions have had an effect on Iran's economy similar to that which Reagan's economic war on the Soviet Union had on its economy in the 1980's; if so, the Supreme Leader & his cohorts must be concerned about the growing possibility of an Iranian glasnost look-alike.

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By comparison Mount Everest is 8,848 metres (29,000 ft) high.

In 1997 when Tony Blair's 'New Labour' came into power, it introduced an 'open door' immigration policy for reasons never fully explained but thought to have been rooted in the idea this would perpetuate its hold on power. As a result, 4MM immigrants came to mostly England (incl. 1MM Poles) & effective January 1st their numbers are expected to swell further by the opening of the immigration flood gates to Bulgarians & Romanians. So England now beats Holland as the most densely-populated country in Europe : when Blair came into office its population density was 374 people per square kilometre, by 2015 that will rise to 419 (vs. Wales' 258, Scotland's 40 & Holland's 408, and Germany's 226, Poland's 123 & France's 105), by 2020 to 433, & by 2046 to 460 (by which time it is expected to be 421 in Holland, 204 in Germany & 115 in France). Apart from possible social stresses, this will create pressure on social infrastructure (schools, hospitals & roads), on water & power utilities, and on green space - *but it need not be all bleak; for England's GDP growth potential will benefit from the need to build 200 or so new homes a day & more infrastructure, and from the fact that the greater fecundity of the generally young immigrants will slow down the rise in the 'aged dependency ratio', with a positive effect on its GDP growth potential.*

In 1624 a Dutch local government entity responsible for water management in its area of jurisdiction¹³ (het Waterschap Stichtse Rijnlanden) issued f1,000 by way of perpetual bonds to repair a partly washed-away dike, & has paid interest on that money ever since. And this is not the only such case; there are at least eight others that, however, date back to only the 18th century. There is even a small lobby group representing the holders of such paper that the issuers keep wanting to redeem (but meeting only limited interest on the part of the holders).

In Holland also, the city of Gouda recently made the headlines when it started asking those applying for social assistance what their family was doing to support them.

In Mexico President Enrique Peña Nieto in less than a year has introduced, & made headway in bringing into law, a breathtaking array of reforms that makes the US Congress look plain silly, & that Americans can only dream about. They include constitutional amendments, educational change (challenging an all-powerful teachers' union), higher taxes for the wealthy, changes in telecom & social policies, and an overhaul of the monopoly position of the state-owned Pemex, for 75 years the third rail of Mexican politics.

According to UBS & Wealth-x, a provider of data on the über-rich, there are now almost 200,000 people in the world with assets of over US\$30MM, a 6% YoY increase.

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Thursday August 8th, 2013

CLIMATE CHANGE THREATENS WORLD FOOD SUPPLY (NYT, Justin Gillis)

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In those days the most important, if not critical, function of local government in the Netherlands was water management (one-third of its land mass was then, & is now, below sea level, with major implications for the country from its climate change-driven rise therein).

- *The UN Intergovernmental Panel on Climate Change was mandated in the 80's to aggregate, & report on, at six-year intervals, the views of thousands of scientists in a wide range of disciplines on the global climatic situation. While its next report won't be out until after a final editing session in March, there have been leaks, the latest of which, that surfaced on November 1st, involves a stark warning that climate change will pose major risks to the world's food supply, potentially reducing output & sending prices higher during a period global food demand is expected to soar. This is in sharp contrast to its 2007 report that, although citing some risks, said climate warming & rising CO₂ levels in the air would boost agricultural output across large areas.*

While the Panel's findings have never had any credibility with hardcore climate change deniers, its tendency to change its views between reports (another leak suggested it is now less alarmist about global warming than before) have caused it to also lose stature with those less negatively inclined towards it (which is somewhat unfair since it merely reports on the views of others, in numbers large enough to be statistically significant).

THE POLITICIAN WHO TOUCHED THE THIRD RAIL (G&M, Jim Leech & Jacquie McNish)

- When the 2008 financial crisis hit, Rhode Island's government pension system was in a mess and, whiplashed by shrinking revenues & skyrocketing pension costs, government slashed spending by cutting bus routes, library hours & jobs, but not touching the pension 'third rail'. This incensed the granddaughter of Italian immigrants, who had attended Harvard, Yale & Oxford on scholarships, whose family had benefitted from buses & libraries & who then was running a local venture capital firm. So she ran for State Treasurer on a platform of fiscal-, & pension-, reform that lost her the teachers' union's support but resonated with taxpayers, & in November 2010 she was elected in a landslide. She soon realized the problem was far greater than she had first thought & that, if nothing were done, pensions would soon eat 20% of the state payroll. So she set out to show taxpayers how much their taxes would have to rise if pension benefits weren't cut back, and to convince state employees & retirees that their pensions had to shrink, that the present system couldn't be fixed & would collapse if it wasn't, and that fixing it was "an everybody issue". So the state now has a defined contribution plan.
- In her uphill battle she had three things going for her. In Rhode Island state pension benefits are the purview of the legislature, not of collective bargaining. In July 2011 the legislature passed a law guaranteeing buyers of its municipal bonds they would be repaid in full in case of a municipal bankruptcy (thereby pre-empting the possibility of municipalities seeking to dig itself out of a hole by reneging on their debt). And she made sure she had the support needed to stop any last minute amendment by lawmakers seeking to mollify angry labour groups. And helped by the town of Central Falls just having gone bankrupt with some retirees' pensions cut in half, on November 17th, 2011, after five hours of debate & over 30 amendments, none of which passed amidst catcalls from the public gallery, her bill passed 57-15, & later in the State Senate 32-2.

Where there is a will, there is always a way; but someone must do the 'heavy lifting'.

ARIZONA UTILITY TRIES STORING SOLAR ENERGY FOR USE IN THE DARK (NYT, Matthew L. Wald)

- Arizona Public Service's Solana project 50 miles Southwest of Phoenix, near Gila Bend, is a three sq. mi. area that houses a sprawling network of parabolic mirrors that focus the sun's energy onto black-painted pipes that carry the resultant heat to huge tanks of

molten salt which, after sunset, provide the heat to make steam for generating electricity. This is one way in which the industry is trying to turn solar energy into a source of “base”-, rather than “intermittent”-, power available during the periods of peak demand before people go to-, & after they return home from-, work. It is a US\$2BN experiment built with a US\$1.45BN loan guarantee from the Department of Energy. At its peak capacity of 280MW it can generate steam 1.75x faster than its steam turbines can use it. Another renewable energy plant experimenting with storage is Oakland-based Bright Energy Source’s \$2.2BN, 400MW, 3,900 acre Ivanpah project in California.

Storing energy as heat is more cost-effective than doing so in batteries with a limited life span.

THE WAY HOME TO WESTMINSTER (G&M, Michael Chong)

- In all Commonwealth countries & the mother of all Parliaments, London, there is an equilibrium between the Executive & the Legislative *branches of government*. So even prime ministers in majority governments aren’t all-powerful. Once that was also the case in Canada; but now the power in both the government & the opposition parties is centralized in the leaders’ hands. My Reform Act 2013 will cure that by enabling MPs to remove a party leader, and strip party leaders of the power to veto the nomination of candidate elected by local party members & to kick an MP out of the party caucus.

The bill was tabled on December 3rd, immediately gained a lot of support, & is part of the growing body of evidence that the power base of Canada’s Alpha Male, Stephen Harper, is eroding (as is the sight of several aspiring successors positioning themselves, & starting to raise money, for an eventual ‘Run for the Roses’). Chong has been a MP since 2004 & has been twice re-elected with increased majorities in the Wellington-Halton Hills constituency, Northwest of Toronto in the über-important 905 phone area code region around it. He is one of a number of young MPs chafing at their leaders’ belief that MPs’ primary role is to vote as, when & how told. Prime Minister Harper recognized his potential when he made him a junior minister in 2006, after just two years in the House, only to have him resign within the year when he thought the PM had gone too far with a bill recognizing Québec as a separate nation within Canada.

PQ TAKES AIM AT PENSION DEFICIT (G&M, Rhéal Séguin)

- A number of the 863 private pension plans in the Province of Québec, that cover 1.2MM people, half of them retired, are in the red for an aggregate \$26BN. So Labour Minister Agnes Maltais recently declared “Defined-benefit plans are in danger ... (and as) the best pension plans available to workers ... we need to protect them”, announcing she will introduce two bills next year, one setting out conditions for workers & employers to work out a solution to their pension deficits, and the other to define financial terms that will ensure their continued solvency (under the first those involved will have 18 months to settle their differences, the last six with help of a conciliator, after which the provincial labour relations board would step in to dictate a solution). And it will be made mandatory for workers & employers to each bear half the cost of pensions in the future.

Labour groups say they welcome the idea except for the 50-50 cost-sharing concept & the greater powers proposed for the labour relations board.

QUÉBEC SIGNALS SHIFT IN HOME CARE POLICY (G&M, André Picard)

- Health Minister Réjean Hébert was a geriatric physician before going into politics, long a critic of the trend towards the ever-greater institutionalization of the elderly & an advocate of the need to slow that trend. Just before its National Assembly adjourned for the Holidays he introduced Bill 67, aka the “autonomy insurance” law, the significance of which doesn’t lie in the amount of spending involved (\$100MM in a \$4.3BN budget for long-term care for the elderly), but in its shift in philosophy. In Québec 85% of the cost of home care & support must be paid out of pocket, & when people cannot afford to pay it, they get institutionalized (which from a fiscal perspective makes no sense since it costs 2x as much as providing them with comparable care in their own home). So Dr. Hébert hopes that by cutting the out-of-pocket cost of at home care to 60% more elderly will be able to continue living longer in their own homes.

Continuing to live in familiar surroundings also adds to the quality of life of the elderly (although there may be an offset in their higher total lifetime health care costs).

TOP 10 WAYS ISRAEL FIGHTS DESERTIFICATION (Israel 21c, Karin Kloostman)

- Ben-Gurion University’s Negev Desert-based Jacob Blaustein Institute for Desert Research is spreading low-tech farming practices to countries as disparate as Kenya, Turkmenistan, Mexico & India. They include :
 - **Look to the ancients** - they survived in the desert;
 - **Make the most of the sun** - use solar energy to keep people from chopping down trees for firewood;
 - **Aquaculture (i.e. fish farming)** - to produce high quality protein products on otherwise useless land;
 - **Crops that can be irrigated with brackish water** - argan trees (from Morocco, where their 8,000 sq. km. primary growing area is now a UNESCO Biosphere Reserve) & olive shrubs; both for their oil-laden fruits;
 - **More crop per drop** - with drip irrigation;
 - **Fruit & vegetable varieties that maximize yield per volume of water used** - incl. those used in biblical times, & biological pest control;
 - **Afforestation** - Israel is the only country in the world that today has more trees than one hundred years ago;
 - **Green building cum ‘passive’ energy architecture** - that takes account of such exogenous factors as wind direction, sun angles & daily temperatures;
 - **Distribution & marketing** - Israel exports its newly-gained desert agriculture expertise all over the developing world; and
 - **Waste water management** – Half of Israel’s irrigation water today involves recycled waste water (the next best is Spain, with 20%).

Low-tech sustainable technology that has stood the test of time in nature is preferable over ‘scientific’ high-tech practices ‘proven’ in a lab over relatively short periods. Not surprisingly China is displaying a growing interest in all this; for it is concerned about the shrinkage in its agricultural lands base, the degradation of its soil & the poor quality of its water.

MY PROMISED LAND : THE TRIUMPH AND TRAGEDY OF ISRAEL (G&M, Rayyan al-Shawaf)

- This is the title of a book by Ari Shavit, a prominent Israeli journalist & political commentator who writes for the Haaretz newspaper. Its underlying theme is not unlike

the view of Isaac Deutscher¹⁴ that the persecuted European Jews' acquisition of Palestine was akin to a man jumping out of a burning building only to have his fall broken by landing on someone on the ground, saving himself from getting hurt but hurting an innocent third party¹⁵. He characterizes his country's place in the world as "the only nation in the West that is occupying another people ... (*but also*) the only nation in the West that is existentially threatened." He sees "an inner circle ... in which an Israeli Goliath stands over a Palestinian David ... (*and an*) outer circle in which an Arab Goliath stands over an Israeli David." He wants Israel to withdraw from the West Bank, not because this will lead to peace, for even if it did so this wouldn't mollify those Palestinians who were expelled, or fled, in 1948 & who, along with their descendants, want to return, but because it is morally wrong to rule another people;

If push were ever come to shove, the supposedly unsurmountable obstacle posed by the "right to return" may well prove more amenable to financial persuasion than generally assumed.

THE DARK SIDE OF GROWTH (Epoch Times, Yanzhong Huang)

- China deserves a place in the history books, not just for its rise from among the poorest nations in the world to its second largest economy but also for the heavy price its people will pay over many years for this achievement. Take air pollution : in Northern China readings of particulate matter < 2.5 microns in size, the most harmful type of toxic smog, are 40x the WHO maximum (& according to a recent Deutsche Bank report this will get 70% worse by 2025). Or water pollution : 70+% of China's lakes & rivers are polluted, 40% "seriously" so, & 25% of all Chinese lack access to safe drinking water. Or food : a 2011 study by Chinese researchers found that each year over 94MM people (7+% of its *population*) get ill from food-borne bacterial diseases while research conducted that same year at the Nanjing Agricultural University found that 10% of all rice sold in China contains excessive traces of cadmium, & other researchers that up to 70% of its farmland is contaminated with toxic chemicals (*it would be interesting to know that number for US 'factory farms'*). And there are now 400 "cancer villages" in the country.
- The economic boom has also been associated with a widening wealth gap (on a par with Russia, and far worse than in the US, Japan & many former Soviet bloc countries), that holds major potential for social unrest. And it has created massive scope for corruption & *a decline in traditional values* : in a nationwide survey in October 2011 82% of respondees agreed their country had suffered a major moral decline in the past decade *to the point where in a country that once venerated its elders, the government has found it necessary to pass laws requiring young people to take responsibility for the financial & emotional wellbeing of their parents*. And many of China's nouveau riches are voting with their feet : according to the Bank of China 14% of those with a net worth of US\$10MM or more have left & another 46% is thinking about doing so. Despite the

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Born a Jew in Poland, as a child he studied with a Hassidic rabbi. But quite early in life he became an atheist, moved to England before WW II, became a Marxist & then a Trotskyist, and is best known for his biographies of Lenin & Stalin.

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He also said that in a rational world this would have led to them becoming friends, with the jumper grateful for having his life saved & helping his victim to get back on his feet, and the latter being thankful for having had a chance to save someone else's life & for the other's recognition of him having saved his life.

restrictions on moving capital abroad, as much as US\$3.7TR is believed to have been spirited out of the country in the past decade. And as the social cost of development becomes more *visible* & unbearable, even those who benefitted from it in the past are starting to think that the existing economic model is no longer appropriate.

The Epoch Times is the mouthpiece of the Falun Gong; nevertheless it has some 'reality check added-value' on China (the writer is a Senior Fellow for Global Health at the Council on Foreign Relations & an associate professor at the South Orange, N.J.-based Seton Hall University's John C. Whitehead¹⁶ School of Diplomacy & International Relations).

CHINA PUTS STAMP ON ZIMBABWEAN ECONOMY (Asahi Shimbun, Tadashi Sugiyama)

- Once "Africa's breadbasket", Zimbabwe's economy is now in ruins & human rights abuses abound. As the West abandoned it, the Chinese moved in to exploit its mineral wealth & agricultural potential. Some Chinese companies now run once white-owned farms for the government while others do so for individuals, providing free fertilizer & pesticides in exchange for wholesale prices on their products. Still others have moved into its vast resource sector, specifically targeting gold, diamonds & chromium. While the government has welcomed this & Mugabe, last September at the UN General Assembly, called China "our most trustworthy partner", many hoi polloi aren't so sure. For pay & safety standards have declined &, according to the National Chamber of Commerce, "We are being economically colonized by China. Labourers ... are working under tragically bad conditions practically treated as slaves." (*although, in all fairness to the Chinese, they may not be treated that much differently from labourers in China*).

The West has largely abandoned sub-Sahara Africa but for a few oil-producing countries around its periphery. This seems short-sighted, given its cornucopia of mineral wealth, especially that of a 'strategic' nature, the fact that throughout the Great Recession much of it enjoyed mouth-watering GDP growth rates, & that in the decades to come half the global population growth will occur there (so it will long have a low, GDP growth-boosting "dependency ratio"). And China's colonization has not just one, but two, Achilles Heels, its reliance on relationships with corrupt rulers & the fact its presence is increasingly feared & resented at the grass roots.

THE QUEEN AND PRINCE CHARLES AGREE TO SHARE SPOILS OF CORNISH GOLD BONANZA (Mail Online, Glen Owen)

Prospectors have discovered gold in commercial quantities in the old, *worked-out* Old Crofty tin mine in Cornwall. For centuries the Crown Estate laid claim to the proceeds of all mining in the area, even though it has been part, since 1337, of the 130,000 acre Duchy of Cornwall. But now documents released under Freedom of Information legislation showed the Crown Estate will split the proceeds with the Duchy of Cornwall. *This has upset anti-monarchists & those who resent the fact that, while the Crown Estate's revenues go into the Treasury (that pays the*

Queen an annual stipend), the Duchy of Cornwall funds Prince Charles' activities & doesn't pay income tax.

POPE BLASTS 'UNFETTERED CAPITALISM (EJ, Stephen Berg)

•In November he released his 200+ page Evangelii Gaudium¹⁷. While exhorting the faithful to live the Gospel, his real target was the "idolatry of money" & "unfettered capitalism". He says that just as the commandment "Thou shalt not kill" safeguards human life, the faithful should also apply "Thou shalt not" to the economy of exclusion & inequality. And he dismissed the right wingers' theory of trickle-down economics with "The promise was that when the glass was full, it would overflow, benefiting the poor. But what happens, instead, is that, when the glass is full, it magically gets bigger (and) nothing ever comes out for the poor."

While attacked by right wingers & Ayn Rand followers as a Marxist bent on destroying capitalism, he seems to less target capitalism & free markets per se as the fact that today, rather than capitalism serving the human race, people are treated as capitalism's servants.

WHAT GRAIN IS DOING TO YOUR BRAIN (Forbes, Gary Drevitch)

•Naples, Florida-based David Perlmutter is a neurologist & author of the best-selling book Grain Brain : The Surprising Truth about Wheat, Carbs and Sugar - Your Brain's Silent Killer. He believes that brain diseases like dementia, chronic headaches, depression & other health scourges have a dietary cause (seemingly supported to a degree by research suggesting Alzheimer's may be related to diabetes, another disease triggered by life style). He advocates a return to Man's early eating habits (that consisted of 75% fats & 5% carbs whereas today's average US diet is more like 60% carbs & 20% fats, with the balance in both cases made up of protein). While detractors say more meat & dairy would increase cardiovascular risks, a Mayo Clinic study published earlier this year in the Journal of Alzheimer's Disease found that people 70 years & over on a high-carb diet had 3.6x the risk of developing cognitive impairment than those on a low-carb one, & research published in August in the authoritative New England Journal of Medicine reported that people with even only mildly elevated blood sugar levels, too low to qualify as Type 2 diabetes, had a significantly higher risk of developing dementia. On a more positive note Perlmutter believes such a diet overhaul can have a positive effect, even late in life, because "The brain can regenerate itself, if we give it what it needs", and that, while many people wrongly associate eating fat with being fat, *in reality* those who eat more fat & fewer carbs produce less insulin & store less fat in their bodies.

The March 2009 issue of Reader's Digest similarly reports on the experience of Dr. Jay Wortman who, personally & in the 800 member Namgis Indian band on North Vancouver Island, successfully managed Type 2 diabetes by eliminating all carbs & sugar from their diets (he himself has cut all bread, pasta & sugar from his diet & says this has made his own incipient Type 2 diabetes symptoms disappear) Both men are of course fighting the CW in the dieticians' community & the Canadian Diabetes Association that diets should carb-rich & fat-poor.

PROOF WE'RE WIRED DIFFERENTLY (WSJ, Robert Lee Hotz)

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The Joy of the Gospel.

- In 2011 a UCLA team headed by USC neurologist Neda Jahanshad conducted a brain-imaging study of healthy twins, 147 women & 87 men, to trace connections in the brain & found “significant” sex differences in the areas in their frontal lobe that are associated with self-control, speech & decision-making. And a more comprehensive study by a group of scientists led by University of Pennsylvania biomedical analyst Ragini Verma published in early December in the Proceedings of the National Academy of Sciences found in 521 females & 428 males between the ages of 8 & 22 that connections between important parts of the brain develop differently in girls & boys as they grow; while in childhood there isn’t much difference, changes happen in adolescence that result in women having more connections between the two brain hemispheres, and from right to left & left to right, while men have more of them within each hemisphere and from back to front. This suggests women are wired for multi-tasking & analytical thought, and men for more focused tasks requiring attention to one thing at a time.

This may confirm what many people have long deducted from observation & inspection but will drive über-feminists around the bend.

WHAT IS YOUR “FITNESS AGE”? (NYT Magazine, Gretchen Reynolds)

- As reported in Medicine and Science in Sports and Exercise, researchers at the Trondheim-based Norwegian University of Science and Technology have developed a way of approximating one’s “fitness age” (i.e. how well one’s body functions relative to how well it should, given one’s age). They tested 5,000 Norwegians aged 20 to 90, taking a dozen measurements, making them fill out long ‘lifestyle questionnaires’ & having them run to exhaustion on a treadmill to get a reading on their peak oxygen intake (VO2 max), a measure how effectively a body delivers oxygen to its cells (VO2 has been shown to closely correlate with augmented life spans, even among the elderly & the overweight, and with fitness age). In the end they found that just five measurements are needed to predict a person’s VO2 max with notable accuracy, waist circumference, heart rate at rest, frequency & intensity of exercise, age and sex.

And for those curious, & bold, enough to wonder about their fitness age, they can get the answer by googling “Fitness Age Calculator”.

CHILDREN’S FITNESS LEVELS DECLINING WORLDWIDE (AP)

- A study by the University of South Australia of 25MM children aged 9 to 17 in 28 countries between 1964 & 2010, reported on at the November 19th meeting of the American Heart Association in Dallas, found that kids today on average take 90 seconds longer to run a mile than their counterparts three decades ago & are 15% less fit than their parents at the same age (& hence more likely to develop conditions like heart disease later in life). This has so alarmed a number of Canadian athletes, health experts, sports equipment purveyors & educators that sixty of them have launched an initiative, Active at School, to lobby governments to get kids active in school for an hour a day.

At a time of growing concern about North American students’ relative underperformance in a increasingly knowledge- based global economy, they may be barking up the wrong tree (especially so given the earlier observation about the effectiveness of phys. ed. in school in comparison to recess activities). And parents really should take the lead in this aspect of their children’s development, rather than seeking to fob off still more of their parental responsibilities onto the public educational system.

DNA FIND COULD REWRITE HISTORY OF NEW WORLD **(Postmedia News, Randy Boswell)**

- In the 1920's archaeologists at the Mal'ta site in South-Central Siberia found the 24,000 year-old skeletal remains of a four year-old child which have ever since been kept in Russia's Hermitage State Museum. A study reported on in Nature says it has yielded a DNA signature shared by modern European populations **and** by many of today's aboriginal people in the Western Hemisphere. This may help explain the presence of the "European" genetic material found in the New World's aboriginal communities that has long puzzled scientists (which hitherto had been explained by seafarers from Europe having migrated Westward along a North Atlantic ice ridge). It now raises the possibility that those who crossed the Bering Strait into North America had originated in what is today Western Europe, rather than in East Asia as had hitherto been the CW.

One thing is for sure, all such ideas will be fought tooth & nail by the leaders of Canada's "First Nations Industry"; for it implies they are carpetbaggers in the New World, just like the rest of us, only earlier ones. At least this was the approach taken by their counterparts South of the border following the discovery in 1996 in the banks of the Columbia River in Washington State of the "Kennewick Man" who dates back to 7,500 BC & whose genetic signature doesn't fit that of today's American Indians. DNA tracing has had some interesting, but not always welcome, results. It has enabled scientists to trace the spread of Man from his Southern African source around the globe. It has revealed that our ancestors & the Neanderthals not only lived in overlapping time periods but interbred; for some Europeans today carry what appears to be Neanderthal DNA. A decade ago a South African magazine carried an article featuring three photos side-by-side of a blonde Norwegian, an ebony-black Ethiopian & a Chinese Malaysian who had been proven to have a common ancestor. Mrs Cheney a few years ago revealed on TV that both her husband & President Bush 43 were distant cousins (12x or so removed) of President Obama, via a common ancestor in 17th Century Massachusetts. Oprah Winfrey learnt that her slave ancestors hadn't originated in the part of Africa she had been told they had. And a decade or so ago, in a nasty US divorce case the husband found out that three of the four children who had always called him "Daddy" had in fact not been sired by him.

WE HAVE TO LEARN TO LOVE THE MICROBE (G&M, Steven Hughes)

- Jason Tetro is a microbiologist at the University of Ottawa, & author of The Germ Code : How to Stop Worrying and Love the Microbes. His message is that of the 2½MM different germs in the world, only a tiny fraction is harmful to humans. And the latter have an incredible ability to adapt, in as little as 20 minutes, to almost any environment so that when Man declares war on them, *as he, in response to 'clean freak'-, & modern demand creating-, pressure has done,* they will inevitably find ways to evade, or get around, the weapons developed to fight them. So he, & others like him, advocate entering a "post-antibiotic era", saying society has for far too long depended on weapons that are losing their usefulness & should shift to a strategy of harnessing the good germs to help fight the bad bacteria in ways the latter cannot develop resistance to.

*Here, as in so many other things, we may have to start considering the possibility that the centuries-old belief that Man can control Nature was a pipedream & that we should start seriously thinking about how start to start living **with** Nature.*

WHY DID THE CROW MAKE IT SAFELY ACROSS THE ROAD? **(Postmedia News, Tom Spears)**

- Crows get hit far less frequently by cars than supposedly smarter animals such as deer & squirrels. So in an experiment Florida International University biologist Shomen Mukherjee drove a vehicle at high speeds up and down two-lane roads. And, as reported in the Canadian Field Naturalist, he found that crows feeding on such roadways wouldn't move when a car came by in the opposite lane, but would fly off when a car approached in the lane they were in, or simply walk over to the other lane until it had passed. From this he & his colleagues deduced they had an ability to comprehend when cars posed a threat, and when, where & how, they didn't.

Interestingly enough, in mythology & fables crows have always had a reputation for cleverness.