

Guyot PRESS

Retype

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ABOUT THIS TYPEFACE

Guyot is a type family inspired by the work of the punchcutter François Guyot, who lived and worked in Antwerp during the sixteenth century.

Guyot's roman types were rather popular in the Low Countries from around 1546 until 1570, when better-designed fonts by Tavernier, Granjon, and Van den Keere became available. However, Guyot's types continued to be used for a much longer period in other countries.

His italics remained popular for two centuries.

Ramiro Espinoza got acquainted with the work of Guyot in 2016, while attending the Expert Class in Type Design at Antwerp's Plantin Institute of Typography. Researching French and Flemish punchcutters with the prospect of creating a revival, Espinoza soon realized that the work of the most important masters of the period had already been digitized. However, he found the work of lesser-known punchcutters like Guyot, though perhaps not of the same superior quality as the others, equally compelling. So far, very few attempts had been made to revive Guyot's types, and most of these digitizations did not come close to the charm of their model. And so a digital Guyot seemed in order.

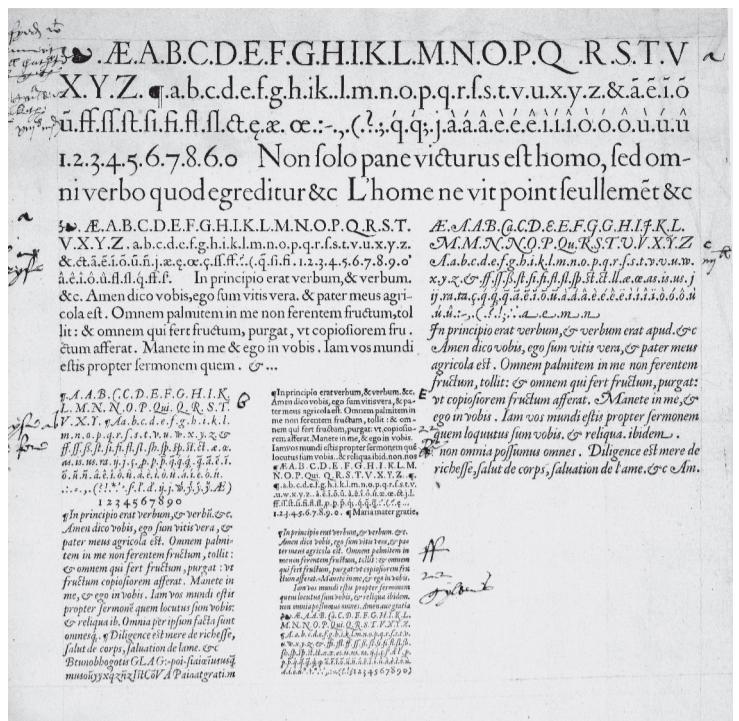
Ghe sources analyzed during the sketching and design process were digital copies of the Folger Specimen kept in the Folger Library in Washington, photographs of several books printed in the Netherlands with Guyot's types, and macro images of the lowercase matrices of the Gros Canon kept in the Plantin-Moretus Museum. Although the two biggest roman sizes were cut quite irregularly, they had some attractive features; the matching italics were positively charming.

Espinoza decided early on that his Guyot was not going to be a facsimile typeface, but rather a modern interpretation aimed at the editorial market. The long ascenders and descenders from the original types were quickly discarded, as they made the type look dated and unfit for modern publications. Espinoza selected the most interesting elements from the Gros Canon and Ascendorica sizes and assembled them into a consistent family with contemporary detailing. In the making of this family, Espinoza drew on his past experience as an in-house newspaper designer. This background played a significant role in the decision to give the letters a sturdy appearance and sharp angles.

Ghe Guyot family was divided into the two Text and Headline subfamilies to take full advantage of those optical range possibilities. In late 2018, Guyot Press, a new subfamily with a larger x-height and an expanded characters set, was also added to meet the needs of modern newspaper settings.

ABOUT THE DESIGNER

Ramiro Espinoza (1969) studied graphic design at the Universidad Nacional del Litoral in Santa Fe, Argentina. After graduation he taught Typography at the Universidad de Buenos Aires. He specialized in type design at the KABK in The Hague and the Plantin Institute of Typography in Antwerp. In 2007 he founded the digital foundry Retype to market his typefaces. Since then he has been a contributor to several design magazines and researched vernacular Dutch lettering. In 2015 he published the book "The Curly Letter of Amsterdam."



Guyot Press was designed with much shorter ascenders and descenders to improve its legibility in small bodies.

Top: Folger Specimen [c. 1565] preserved at the Folger Shakespeare Library, Whasington, US.
Bottom: Detail of Guyot's Ascendorica roman.

Hdnp

Guyot Press was designed with much shorter ascenders and descenders to improve its legibility in small bodies.

FAMILY

Guyot Press Regular 1

Guyot Press Italic 1

Guyot Press Bold 1

Guyot Press Bold Italic 1

Guyot Press ExtraBold 1

Guyot Press ExtraBold Italic 1

Guyot Press Regular 2

Guyot Press Italic 2

Guyot Press Bold 2

Guyot Press Bold Italic 2

Guyot Press ExtraBold 2

Guyot Press ExtraBold Italic 2

Guyot Press Regular 3

Guyot Press Italic 3

Guyot Press Bold 3

Guyot Press Bold Italic 3

Guyot Press ExtraBold 3

Guyot Press ExtraBold Italic 3

SUPPORTED LANGUAGES

Afar, Afrikaans, Albanian, Azerbaijani, Basque, Belarusian, Bislama, Bosnian, Breton, Catalan, Chamorro, Chichewa, Comorian, Czech, Danish, Dutch, English, Esperanto, Estonian, Faroese, Fijian, Filipino | Tagalog, Finnish, Flemish, French, Gaelic, Gagauz, German, Gikuyu, Gilbertese | Kiribati, Greenlandic, Haitian-Creole, Hawaiian, Hungarian, Icelandic, Igo | Igbo, Indonesian, Irish, Italian, Javanese, Kashubian, Kinyarwanda, Kirundi, Latin, Latvian, Lithuanian, Luba | Ciluba | Kasai, Luxembourgish, Malagasy, Malay, Maltese, Maori, Marquesan, Marshallese, Moldovan | Moldovian | Romanian, Montenegrin, Nauruan, Ndebele, Norwegian, Oromo, Palauan | Belauan, Polish, Portuguese, Quechua, Romanian, Romansh, Sami, Samoan, Sango, Serbia, Sesotho, Setswana | Sitswana, Seychellois-Creole, SiSwati | Swati | Swazi, Silesian, Slovak, Slovenian, Somali, Sorbian, Sotho, Spanish, Swahili, Swedish, Tahitian, Tetum, Tok-Pisin, Tongan, Tsonga, Tswana, Tuareg | Berber, Turkish, Turkmen, Tuvaluan, Uzbek | Usbek, Wallisian, Walloon, Welsh.

BASIC ROMAN CHARACTER SET

AÆBCDÐEFGHIJKLMNOP
OŒPþQRSTUVWXYZ
ÀÁÂÃÈÉÊËÌÍÎÏÒÓÔÕÙÚÛÜ
01234567890 ¼ ½ ¾ ¹/₈ ³/₈ ⁵/₈ ⁷/₈ ¹/₅ ²/₅ ³/₅
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aæbcdðefßghijklmnoœ
pþqrstuvwxyz?!;:,“”“”“”
àáâãèéêëìíîòóôõùúûü
fiflfffhfbffifflffhffbffk
addehimnntu
addehimnntu
01234567890

AÆBCDEFGHijklmn
OŒPſQRSTUvwxyz&?!
01234567890

BASIC ITALIC CHARACTER SET

aæbcdðeffßghijklmnoæ
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àáâãèéêëìíîòóôõùúûü
fiflfffhfbffifflffhffbffk
adephimntru
adephimntru
01234567890

*AÆBCDEFGHIJKLMNOP
OŒPſQRSTU VWXYZ&?!
01234567890*

Superior & Inferior figures

OPENTYPE FEATURES

H 0 1 2 3 4 5 6 7 8 9 H o 1 2 3 4 5 6 7 8 9 H _o 1 2 3 4 5 6 7 8 9

Fractions

1/4 → ¼ 1/2 → ½

Ordinals

2a → 2ª 3o → 3º

Lining & Old style figures

0 1 2 3 4 5 6 7 8 9 | 0 1 2 3 4 5 6 7 8 9

Tabular figures

0 1 2 3 4 5 6 7 8 9 | 0 1 2 3 4 5 6 7 8 9

Case forms

(—¿QUÉ?) «BETA»

Small caps

NATO → nato 0123 → 0123

Ligatures

fi fl ff fh ffi ffl ffh

Discretionary Ligatures

ſt ſt as is us es

Ending forms > SSo2 and SSo3 in InDesign

a_d_e_h_n_m

Contextual alternates

(Q) → (Q) Qp → Qp

Stylistic alternates > SSo1 in InDesign

Joking → Joking

Ornaments

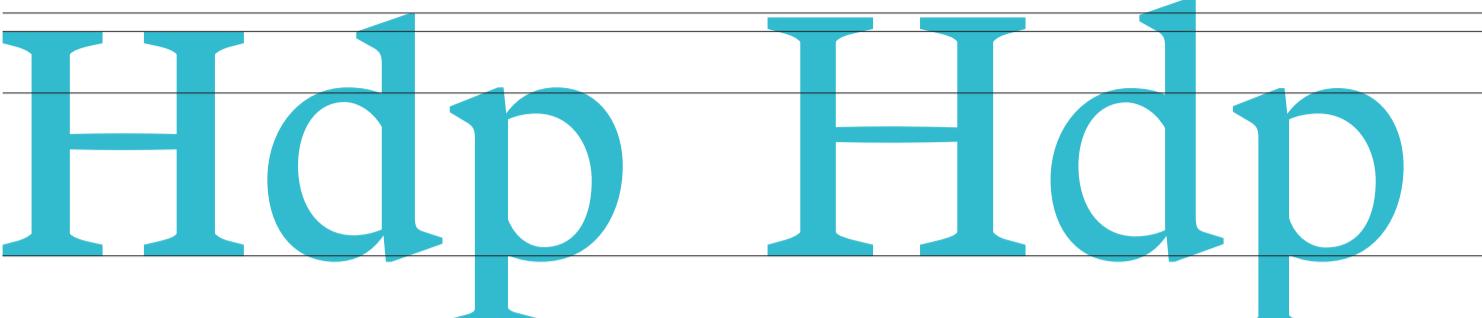
❧ ☘ ☙ ☚ ☛ ☜

¶ Guyot has been produced taking full advantage of the capabilities available through the OpenType format. This format is multi-platform and can store more glyphs than previous ones. It also includes the possibility of using advanced typographic features such as alternative letter designs, small caps, fractions, case forms, superscript, subscript figures and many other useful options.

¶ To take advantage of these features it is essential to use software with proper OpenType support, like Adobe InDesign and Adobe Illustrator.

X-HEIGHTS: PRESS & TEXT

Guyot Press Regular Guyot Text Regular



The image shows two pairs of letters, 'Hdp' and 'Hdp', side-by-side. The first pair is in 'Guyot Press Regular' and the second in 'Guyot Text Regular'. Both are set at the same size. The letters are teal-colored on a white background with horizontal grid lines. The 'dp' in both pairs are lowercase and have a distinct vertical stroke.

Guyot Press ExtraBold Guyot Text ExtraBold



The image shows two pairs of letters, 'Hdp' and 'Hdp', side-by-side. The first pair is in 'Guyot Press ExtraBold' and the second in 'Guyot Text ExtraBold'. Both are set at the same size. The letters are teal-colored on a white background with horizontal grid lines. The 'dp' in both pairs are lowercase and have a distinct vertical stroke.

DESIGN FEATURES: ROMAN



REGULAR 1
ITALIC 1

10 PTS

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BOLD 1
BOLD ITALIC 1

10 PTS

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EXTRABOLD 1
EXTRABOLD ITALIC 1

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REGULAR 1 | 16 PTS

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REGULAR 1
ITALIC 1

Miracle Prosecutor Reason *self-compassion* psychologists *Therapy*

REGULAR 2
ITALIC 2

10 PTS

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BOLD 2
BOLD ITALIC 2

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EXTRABOLD 2
EXTRABOLD ITALIC 2

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REGULAR 2 | 16 PTS

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ITALIC 2 | 16 PTS

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BOLD 2 | 16 PTS

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REGULAR 2
ITALIC 2
EXTRABOLD 2
EXTRABOLD ITALIC 2

Trophy worsening response

Ripples from Catalonia

Mocked

as Celebrities screaming

Malibu

REGULAR 3
ITALIC 3

10 PTS

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BOLD 3
BOLD ITALIC 3

10 PTS

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EXTRABOLD 3
EXTRABOLD ITALIC 3

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ITALIC 3 | 16 PTS

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BOLD 3 | 16 PTS

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REGULAR 3
ITALIC 3
EXTRABOLD 3
EXTRABOLD ITALIC 3

ANTIKYTHERA

Bronze

sediment

 *chemistry*

Research

Why do we feel so guilty?

looking



There's no doubt that people in the UK value libraries. They are seen as an asset to communities, offering a calm, quiet, neutral space, where anyone can access information for work or leisure. When libraries are threatened with closure, community groups and public figures spring into action to try to save them.

How many people actually use libraries?

by Frankie Wilson

Fewer and fewer, it seems: in the five years to 2013/14 (the last period for which data is publicly available) the number of visits to public libraries fell by 12.4% to 282m. This decrease was mainly the result of fewer people using them, demonstrated by the fact that the proportion of adults who had visited a library in the previous 12 months fell by 10.2%.

There's no doubt that people in the UK value libraries. They are seen as an asset to communities, offering a calm, quiet, neutral space, where anyone can access information for work or leisure. When libraries are threatened with closure, community groups and public figures spring into action to try to save them. But while we clearly hold libraries close to our hearts, how many of us actually use them?

Fewer and fewer, it seems: in the five years to 2013/14 (the last period for which data is publicly available) the number of visits to public libraries fell by 12.4% to 282m. This decrease was mainly the result of fewer people using them, demonstrated by the fact that the proportion of adults who had visited a library in the previous 12 months fell by 10.2%.

As well as fewer people using libraries, those who do use them are making fewer visits. What's more, the number of books lent by public libraries fell by 20% to 247m over the same period, mainly due to a decrease in the number of borrowers – by 18.3% to 9.8m.

At the same time, the number of libraries in the UK fell by 7.5% from 4,482 in 2009/10 to 4,145 in 2013/14. It's impossible to tell from the statistics whether the fall in use was caused by the closure 337 libraries, or if the closures came as a result of the fall in use.

It's clear that fewer people use libraries than in the past. But they're still visited by over a third of the adult population –

and 9.8m of those borrowed books. If we delve a little deeper into the data, we can sketch a more detailed picture of what's going on. For instance, statistics show that some sections of the community use public libraries more than others. There's no doubt that people in the UK value libraries. They are seen as an asset to communities, offering a calm, quiet, neutral space, where anyone can access information for work or leisure. When libraries are threatened with closure, community groups and public figures spring into action to try to save them. But while we clearly hold libraries close to our hearts, how many of us actually use them?

Fewer and fewer, it seems: in the five years to 2013/14 (the last period for which data is publicly available) the number of visits to public libraries fell by 12.4% to 282m. This decrease was mainly the result of fewer people using them, demonstrated by the fact that the proportion of adults who had visited a library in the previous 12 months fell by 10.2%. As well as fewer people using libraries, those who do use them are making fewer visits. What's more, the number of books lent by public libraries fell by 20% to 247m over the same period, mainly due to a decrease in the number of borrowers – by 18.3% to 9.8m.

At the same time, the number of libraries in the UK fell by 7.5% from 4,482 in 2009/10 to 4,145 in 2013/14. It's impossible to tell from the statistics whether the fall in use was caused by the closure 337 libraries, or if the closures came as a result of the fall in use.

It's clear that fewer people use libraries than in the past. But they're still visited by over a third of the adult population – and 9.8m of those borrowed books. If we delve a little deeper into the data, we can sketch a more detailed picture of what's going on. For instance, statistics show that some sections of the community use public libraries more than others. More women than men visit public libraries, and people be-

tween the ages of 25 and 44 visit more than other age groups. A higher proportion of adults from black and minority ethnic (BME) groups visited a library than white adults. And libraries in the most deprived areas are visited more than libraries in the least deprived areas.

On the rise?

There's another major library sector which keeps detailed statistics – university libraries. The Society of College, National and University Libraries (SCONUL) have been collecting statistics every year for decades. And the situation of academic libraries is clearer than for public libraries, because there have not been widespread closures.

Analysis of the data shows that for every full-time student studying at a university, there are around 55 visits to the library each year. This average has not changed for ten years. But because student numbers have increased, university libraries are seeing more people come through the doors than ever before. For example, last academic year (2014/15) there were 2.4m visits to Oxford University libraries.

Yet the concept of "library use" is more complicated in university libraries than public libraries: it's not simply a matter of counting the numbers of people coming in or books going out. The truth is, university libraries are no longer simply physical buildings where books are stored and made available for borrowing or reference.

Since the mid-1990s, academic journals have been published electronically. The SCONUL statistics show that over the last ten years the average number of journals bought by a university library has increased from 7,000 to 30,000, with 99% of these now provided electronically. Since around 2010, textbooks and research monographs have followed the same path towards online provision. This means that a student or researcher may be a very heavy user of the library, even if they

Rising income inequalities are linked to unhealthy diets and loneliness

Megan Blake

One in every five people in the UK today are living in poverty – that is, living with a household income below 60% of the median national income when housing costs are considered. And according to recent research by the Joseph Rowntree Foundation, two thirds of children in poverty live in a working family. These rates are expected to increase sharply by 2021-22, assuming there is no change in government policy.

Poverty is linked directly to how people access food. A recent Social Market Foundation (SMF) study confirms a growing body of academic research that shows that food is a key component of household budgets. When these budgets are stretched, families trade down on their food choices. One in three low income households in the survey indicate that they purchase cheaper and less healthy food in order to make their budgets stretch. Many adults reported cutting back on their own food consumption so that others in their family, such as children, can eat.

Geography plays an important role in the affordability of food. The cost of food available to people will depend on what format of shop is located in an area, for example. Research by the consumer charity Which? shows that convenience shops charge more for the same items compared to larger format shops. On top of this, small shops have fewer product lines, tend not to carry own-brand value labels, and have a limited selection of fruits and vegetables.

Food deserts

The SMF study also found that more than a million low-income households live in areas known as "food deserts". These are areas where access to good quality food is likely to be a challenge because there is an absence of such food available to purchase. The study defines a food desert as the presence of two or fewer VAT-registered food shops in areas based on population concentrations of between 5,000 to 15,000 people. These areas will be smaller in urban places compared to rural places. What the study shows is that nearly one in ten areas that are classed as income deprived can also be considered a food desert.

The important thing to understand about this re-

“Food is the heart of our individual relationships with our selves and how we feel. But food at its best gathers people together to talk to each other and start to develop quality relationships with each other.”

search is that it identifies areas where there are likely to be high concentrations of people on low income who will have the added burden of having to travel further than others to access food. This will insure an additional cost for them in terms of time or money. If you have £20 a week spend on food, not unusual for the poorest fifth of the population, then you don't want to be spending some of that on the transport to get to the shops. You want that money to go toward food. On top of this, you must carry what you get, so you will choose food items that are easy to carry and make decisions about what you really need. A bag of potatoes is heavy. Vegetables take up a lot of volume and go off quickly. Fruit is expensive. This will limit what you can get. Frozen pizza, however, is much lighter and easier to carry. You can buy five and put them in the freezer and then eat them through the week. You will know that they will still be as good on day five as on the day you purchased them. Everyone in your family will eat this food and feel full. The vegetables



are a heavier and riskier prospect, and you can't afford the risk. Grocery delivery is also out of the question as most stores have a minimum spend that exceeds this budget before delivery is free.

Being food insecure

While there are obvious health implications associated with hunger and not eating a healthy diet, there are other less obvious implications associated with the struggle to access food. One key aspect that is emerging is the way in which people also miss out on social interactions. We have a crisis of loneliness in the UK today, so much so that the prime minister has appointed a minister for loneliness, currently Tracy Crouch MP. While the causes of loneliness vary depending on the circumstances of individuals, it is also clear that being unable to afford or access food also means that people forgo social interactions. Mary McGrath, director of the charity FoodCycle, reports that 71% of those who attend FoodCycle meals report that they feel lonely sometimes or

often. This rate is much higher in Peterborough, where 91% of people who responded to the survey said that they were lonely. There is clear research evidence that shows that those who have good social networks, even those who are poor, live better. There is also clear medical evidence that the presence of friends will make a difference to recovery rates from life threatening illnesses, for example heart attacks.

Across the country a number of charities, including FoodCycle, are supporting low-income communities by providing activities that bring people together and they are using food to do this. Not only do these activities support people who are food insecure, but it is also meeting that social need. Gary Stott, director of the surplus food social enterprise Community Shop, makes this connection clear when he says:

“Food is the heart of our individual relationships with our selves and how we feel. But food at its best gathers people together to talk to each other and start to develop quality relationships with each other.”

Retailers must accept that pop-up stores are here to stay

Christmas shopping is changing



At Christmas time, vacant shop spaces suddenly fill with new vendors selling decorations, small toys, gifts and calendars for the following year. Christmas markets seem to materialise out of thin air, and even online retailers set up shop on the high street. By the new year, these will all vanish without a trace. Yet for businesses, the pop-up store phenomenon is more than just a phase. Pop-up retailing is a simple concept – it's a retail store that exists for a limited period, measured in weeks, days, sometimes mere hours. They can take any form, from shops, bars and restaurants to cinemas and galleries. And they're often used as part of strategies to promote brands and launch new products.

The origins of pop-up stores can be traced back to the periodic markets of the Middle Ages, and the salesmen who travelled from place to place, selling their wares. Indeed, since the first German Christmas markets appeared in the 14th century, sellers have used pop-up stores to meet seasonal demands, in cases where having a permanent premises may not make financial sense.

A new tradition

The main attraction of pop-up stores is their flexibility, which is become increasingly important in the rapidly changing world of retail. Businesses are under mounting pressure to evolve, to keep pace with changing customer expectations and behaviour.

As established high-street vendors are overtaken

by online-only retailers in terms of market value, many find themselves with excess store space: one estimate says there are 50,000 surplus stores across the UK. These spaces present opportunities for pop-up shops, where different retailers can appear unexpectedly, create a buzz and disappear before people have a chance to get bored. The pop-up enables business to be more flexible in terms of location, financing and strategy. Be-

ing able to set up in different places allows retailers to take advantage of the growing amounts of vacant space in many shopping malls and town centres. Short-term use of this space can benefit property owners by bringing in some rent, while providing opportunities for retailers – especially new business owners seeking to test out their business models.

Pop-up stores also allow retailers to go where

their customers are; for example, by capitalising on gatherings of potential customers at events and festivals. Retailers can become "nomadic", setting up stall in specially-designed marquees, repurposed shipping containers, and even inside other shops.

The financial flexibility of pop-up stores mean that they can be a low-cost alternative for start-ups which want to test a business concept, without the commitment or expense of leasing a permanent premises. The high cost of commercial rent in major cities has also encouraged the emergence of the so-called "shop share". Here, small retailers can rent a rail, table, shelf or stand in a more established shop.

Such initiatives have encouraged greater collaboration among retailers, and helped small and independent business to boost their brand. Successful business concepts can then develop from pop-up to stay-up. In this way, pop-up stores can offer strategic flexibility.

Online, in person

Well-established businesses can also benefit, using pop-up stores less as a means of driving sales, and more as a way to promote their brand, market new products, and connect face-to-face with the general public. This goes for online retailers too: eBay, for instance, established a pop-up shop in central London over Christmas, featuring their 200 best-selling items.

This gives online-only stores a chance to have more direct interaction with consumers, as well as providing opportunities to link the brand to specific cultural, fashion or sporting events.

In the retail industry, the boundaries between pop-up and more traditional retailing are blurring. At Christmas time, retailers will take every opportunity to increase sales during this peak



20

The next generation
of farmers

Society

Can Britain really cope with a fall in housing prices?

What would falling house prices mean for Britain? How might it affect employment, household consumption, investment, the government deficit and, critically, the UK current account – the net measure of cash flows in and out of the economy.

► BY A. TZIAMALIS

Britain is locked in a seemingly constant battle with the burden of its overheated housing market. Theresa May has announced measures at the Conservative Party conference designed, at the very least, to dampen criticism over a lack of housing and ever-increasing prices.

It is unclear for now just what impact May's announcement for land releases and an extra £2 billion for affordable housing may have. After all, the UK's housing stock is valued at close to £7 trillion. But her announcement comes after London real estate prices registered their biggest fall in a decade, stoking expectations for further drops in real estate prices.

But what would falling house prices mean for Britain? How might it affect employment, household consumption, investment, the government deficit and, critically, the UK current account – the net measure of cash flows in and out of the economy.

The greater fool

Brexit and associated uncertainty about the future of the UK financial sector are making real estate investors, home buyers and households more cautious. One of the things that has fuelled London real-estate prices over the years is the "greater fool" mechanism. Buyers knew that a property was expensive, and perhaps ridiculously expensive, but they counted on the fact that they could sell it later to a "greater fool" at an even higher price, for a handsome profit.

That phenomenon was perhaps best



Real estate values are critical to the UK's prosperity. Households, pension funds and businesses have invested heavily

displayed in the first recorded crisis in free markets. Tulip mania in 17th century Holland built to a crescendo which saw single, rare tulip bulbs change hands for extraordinary sums. Historian Mike Dash has described it as enough to "purchase one of the grandest homes on the most fashionable canal in Amsterdam for cash, complete with a coach house and an 80 foot garden".

As tulip mania went on to show, however, if prices show indications of a fall, the upward trend reverses violently. If property investors become skittish, they will try to sell before prices fall further, and all of them at the same time. Property values built over decades could collapse within months: the expectation of falling prices causes the falling prices.

This mechanism is a real danger in London which relies heavily on local and international investors who view properties not as a home but as a commodity, readily sold to maximise profit. In 2013 alone, international investors accounted for 82% of London

property activity.

Buyers knew that a property was expensive, and perhaps ridiculously expensive, but they counted on the fact that they could sell it later to a "greater fool".

However, most properties in the UK still belong to households. Families, by and large, don't need to sell. So what would falling property prices mean for them?

First, many pension funds and investment bonds rely on UK property to generate income for their beneficiaries. Second, we have what economists call the Wealth Effect. Economists have long associated consumers' perceived real estate wealth with spending be-

haviour: if you believe your house is worth a lot, you feel financially secure. And then you allow yourself to save less and spend more. Just consider the rising number of people who plan to subsidise their retirement with wealth generated by their homes.

If their assumed valuations start to look shaky, these people will spend less to build up their savings. The pain would be felt by many: about 64% of households in England are owner-occupiers. The Wealth Effect is important in most

developed economies but even more so in the UK which relies on ever-rising levels of consumer spending for its growth. A 10% fall in the value of dwellings in the UK would correspond to a loss of wealth equivalent to more than the value of all the cars exported from the UK in a decade.

Ripple effects

The climate of economic uncertainty, reduced consumption and falling real estate values brings an additional problem for the UK. Britain has long had a trade deficit, but it has also benefited from positive foreign direct investment. The Current Account itself has been in the red for nearly 20 years now but the hundreds of billions of inward foreign investment channelled to UK property over the same period meant that this deficit remained manageable – just about.

According to the Bank of England, overseas companies have accounted for roughly half of all UK commercial real estate transactions since 2013. If international investors expect prices to fall in any sustained way, the inflow of money would stop and many would sell up. Why buy or hold an asset just at the start of what might be a long decline? This would not only put pressure on real estate prices but would affect UK GDP, reduce government revenues and worsen the UK Current Account position. The credit rating of the UK would come under more pressure, and trillions of UK government debt would cost more to refinance. Then the UK government deficit would deteriorate further, taxes might rise to cover for this and the domino effect would be in full cry, spreading to all sectors of the economy, similar to events in Greece.

Policy plays

Real estate values are critical to the UK's prosperity. Households, pension funds and businesses have invested heavily; most of the country has, in one way or another, skin in this game. Britain may need to wean itself of its property addiction, but it also needs to sustain confidence in the single asset class that counts for almost two thirds of its wealth.

It is deeply difficult politically to sell that story, however, when the understandable clamour is to make housing more affordable.

It is commonplace to emphasise that we are now in a new era of globalisation, marked by the rise in the importance of emerging economies.

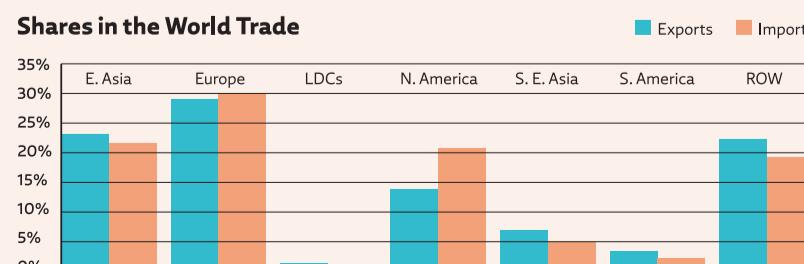
► BY P. HOLMES & M. GASIOREK

But what does this really mean? Richard Baldwin, author of *The Great Convergence*, argues that what is new is the combination of northern technology and southern labour. But he adds that for the present, global value chains are still mainly regional. Intermediate goods like car parts are primarily moved around within a regional "factory" (North America, Europe, East Asia), and then final goods are shipped to the user. China is the exception to this rule with its use as a factory econ-

Globalisation is alive and kicking

omy by the EU and US. It is worth testing this idea by looking at the patterns in the data since 2002. We have organised world trade into country

groups: North America, Europe, East Asia, South-East Asia, South America, Less Developed Countries, and the Rest of the World. The charts provides



a snapshot of the share each region had in world trade in 2016 and the changes since 2002. What we see is that the greatest shares of both imports and exports are accounted for by Europe, followed by East Asia, the Rest of the World (RoW) and then North America. Trade flows are calculated using UN COMTRADE import data.

The next chart gives the percentage point changes in these shares between 2002 and 2016. It shows that East Asia has increased its share by five points. The other big gainer is the Rest of the World, whose constituent countries

have seen their share of world imports increase by three points and their share of exports increase by seven. Growth here, and for Asia and South America, reflects the growing importance of emerging markets. And this is backed up by declines in the share of imports and exports for both Europe and North America.

It is commonly argued that distance matters in international trade; that countries tend to trade most with countries which are closer. The fact that the cost of moving people hasn't fallen along with the cost of moving goods and information may accentuate

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The opioid epidemic in 6 charts

Your guide to a public health crisis that's likely to get worse.

► Health 6

How fashion adapted to climate change

While today we sweat, early modern Europeans froze.

► Society 12

► Science 4



Babies can learn the value of persistence

Should the US put power lines underground?



It is the height of a highly destructive hurricane season in the United States. The devastation of Harvey in Texas and Louisiana caused nearly 300,000 customers to lose electricity service, and Hurricane Irma has cut service to millions of people. Soon, winter storms will bring wind and snow to much of the country.

ANXIOUS PEOPLE everywhere worry about the impact these storms might have on their safety, comfort and convenience. Will they disrupt my commute to work? My children's ride to school? My electricity service? When it comes to electricity, people turn their attention to the power lines overhead and wonder if their electricity service might be more secure if those lines were buried underground. But having studied this question for utilities and regulators, I can say the answer is not that straightforward. Burying power lines, also called undergrounding, is expensive, requires the involvement of many stakeholders and might not solve the problem at all.

Where should ratepayer money go?

Electric utilities do not provide service for free, as everyone who opens their utility bill every month can attest. All of the costs of providing service are ultimately paid by the utility's customers, so it is critical that every dollar spent on that service provides good value for those customers. Utility regulators in every state have the responsibility to ensure that utilities provide safe and reliable service at just and reasonable rates. But what are customers willing to pay for ensuring reliability and mitigating risk? That's complicated. Consider consumer choices in automobile insurance. Some consumers choose maximum insurance coverage through a zero deductible.

Others bring higher premiums zero deductibles and choose a higher deductible at lower premium cost.

To provide insurance for electricity service, regulators and utilities must aggregate the preferences of individual customers into a single standard for the grid. It's a difficult task that requires a collaborative effort.

The state of Florida's reaction in the wake of the 2004-2005 hurricane seasons provides a model for this type of cooperative effort. Utilities, regulators and government officials meet every year to address the efficacy of Florida's storm hardening efforts and discuss how these efforts should evolve, including the selective undergrounding of power lines. This collaborative effort has resulted in the refinement of utility "vegetation management practices" – selective pruning of trees and bushes to avoid contact with power lines and transformers – in the state as well as a simulation model to assess the economic costs and benefits of undergrounding power lines.

Nationally, roughly 25 percent of new distribution and transmission lines are built underground, according to a 2012 industry study. Some European countries, including the Netherlands

and Germany, have made significant commitments to undergrounding.

Burying power lines costs roughly US\$1 million per mile, but the geography or population density of the service area can halve this cost or triple it. In the wake of a statewide ice storm in December 2002, the North Carolina Utilities Commission and the electric utilities explored the feasibility of burying the state's distribution lines underground and concluded that the project would take 25 years to complete and increase electricity rates by 125 percent. The project was never begun, as the price increase was not seen as reasonable for consumers.

A 2010 engineering study for the Public Service Commission on undergrounding a portion of the electricity system in the District of Columbia found that costs increased rapidly as utilities try to underground more of their service territory. The study concluded that a strategic \$1.1 billion (in 2006 dollars) investment would improve the reliability for 65 percent of the customers in the utility's service territory, but an additional \$4.7 billion would be required to improve service for the remaining 35 percent of customers in outlying areas. So, over 80 percent of the costs

for the project would be required to benefit a little more than one third of the customers. The Mayor's Power Line Undergrounding Task Force ultimately recommended a \$1 billion hardening project that would increase customer bills by 3.23 percent on average after seven years.

Shifting risk

In addition to the capital cost, undergrounding may make routine maintenance of the system more difficult, and thus more expensive, because of reduced accessibility to power lines. This may also make it more difficult to repair the system when outages do occur, prolonging the duration of each outage. Utility regulators and distribution utilities must weigh this cost against the costs of repairing and maintaining the electricity system in its overhead state.

Electricity service is valuable. A 2009 study from the Lawrence Berkeley National Laboratory estimated an economic cost of \$10.60 for an eight-hour interruption in electricity service to the average residential customer. For an average small commercial or industrial customer the cost grew to \$5,195, and to almost \$70,000 for an average medium to large commercial or industrial customer. The economic benefits of storm hardening, therefore, are significant.

Beyond the economic value of undergrounding, one could consider other benefits, such as aesthetic ones, which may be more difficult to quantify. But all costs and benefits must be considered to ensure value for the customer's investment.

In terms of reliability, it is not correct to say that burying power lines protects them from storm damage. It simply shifts the risk of damage from one type of storm effect to another.

For example, it is true that undergrounding can mitigate damage from wind events such as flying debris, falling trees and limbs, and collected ice

"Burying power lines costs roughly US\$1 million per mile, but the geography or population density can halve this cost or triple it."

