

讲义

Demographic

人口统计

The baby-bust economy

“婴儿荒”经济

Global fertility has collapsed, with profound economic consequences

全球生育率大幅下降，带来了深远的经济后果

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In 2000 the world's fertility rate was 2.7 births per woman, comfortably above the “replacement rate” of 2.1, at which a population is stable. Today it is 2.3 and falling. The largest 15 countries by GDP all have a fertility rate below the replacement rate.

The result is that in much of the world the pattern of tiny feet is being drowned out by the clatter of walking sticks. The prime examples of ageing countries are no longer just Japan and Italy but also include Brazil, Mexico and Thailand. By 2030 more than half the inhabitants of East and South-East Asia will be over 40. As the old die and are not fully replaced, populations are likely to shrink. Outside Africa, the world's population is forecast to peak in the 2050s and end the century smaller than it is today. Even in Africa, the fertility rate is falling fast.

2000年，全球生育率每个育龄妇女生育的子女数量为2.7，远高于标准“人口替代率”2.1（当生育率达到该标准时，人口数量即稳定）。如今，全球生育率跌至2.3，而且还在降低。国内生产总值最大的15个国家的生育率都低于标准人口替代率。

其结果是，在世界大部分地区，老龄人口数量远远超过了新生儿人口数量。主要的老龄化国家不再只是日本和意大利，还包括巴西、墨西哥和泰国。到2030年，东亚和东南亚一半以上的居民将超过40岁。随着老龄人口死亡并且其数量还没有被新生儿数量完全替代，那么总人口可能会减少。除非洲外，世界上其他地区的人口数量预计将在2050年代达到峰值，并且在本世纪末，人口数量将低于现在的人口数量。即使在非洲，生育率也在大幅下降。

【词汇】

1. **demographic** /ˌdeməˈgræfɪk/ n. data relating to the population and different groups within it 人口统计数据

例：the demographics of radio listeners

电台听众统计数据

2. **bust** /bʌst/ n. 雅思/GRE/专八 a period of economic difficulty in which people and businesses struggle to survive
经济萧条期；经济不景气

例：Will it be boom or bust for the property market?

房地产市场是繁荣还是萧条？

<反义词> boom

***baby-bust** 指新生儿出生率低，新生儿人口数量少。

3. **fertility** /fərˈtɪləti/ n. the ability to produce babies, young animals, fruit or new plants 能生育的；可繁殖的；能结果的

例：fertility rate 生育率；人口出生率

4. **drown** /draʊn/ v. 四级/雅思/考研 (of a sound 声音) to be louder than other sounds so that you cannot hear them
压过；盖没；淹没

例：She turned up the radio to drown out the noise from next door.

她开大了收音机的音量以压过隔壁房间的吵闹声。

5. **clatter** /ˈklætər/ n. the act of making a loud noise like hard objects knocking together 移动发出（像硬物碰撞）的响声

例：the clatter of horses' hoofs

嗒嗒的马蹄声

6. **walking stick** /ˈwɔːkɪŋ stɪk/ a stick that you carry and use as a support when you are walking 手杖；拐棍

7. **inhabitant** /ɪnˈhæbɪtənt/ n. 四级/雅思/托福/考研 a person or an animal that lives in a particular place（某地的）居民，栖息动物

例：the oldest inhabitant of the village

这个村最老的居民

<同义替换> resident

8. **peak** /piːk/ v. 四级/六级 GRE/考研 to reach the highest point or value 达到高峰；达到最高值

例：Oil production peaked in the early 1980s.

20 世纪 80 年代初期，石油产量达到了最高峰。

【短语】

1. **the patter of tiny feet** : used humorously to mean that someone is going to have a baby 将要有小宝宝了〔幽默用法〕(后文“the clatter of walking sticks”指的是老年人)

例: They will soon be hearing the patter of tiny feet.

他们很快就会有个小宝宝了。

【背景信息】

1. **replacement rate** : 人口替代率是为使一个国家或某个区域在人口上出生与死亡达到某种相对的平衡而产生的一个比率，即每个妇女平均生小孩的个数，去扭转失调或保持平衡状态。联合国推算指出，标准的人口替代率为 2.1。

Whatever some environmentalists say, a shrinking population creates problems. The world is not close to full and the economic difficulties resulting from fewer young people are many. The obvious one is that it is getting harder to support the world's pensioners. Retired folk draw on the output of the working-aged, either through the state, which levies taxes on workers to pay public pensions, or by cashing in savings to buy goods and services or because relatives provide care unpaid. But whereas the rich world currently has around three people between 20 and 64 years old for everyone over 65, by 2050 it will have less than two. The implications are higher taxes, later retirements, lower real returns for savers and, possibly, government budget crises.

抛开那些环保主义者的观点，人口减少必定会带来麻烦。全球人口数量还没有接近饱和，年轻人数量减少会对经济造成很多不利的影响。最明显的问题是，养活全球养老金领取者正变得越来越困难。退休人口有赖于适龄劳动力的产出来维持生活——要么靠国家向劳动者征税得来的公共养老金，要么靠存款来购买商品和服务，或者靠亲属提供无偿赡养。但是，在发达国家，约 3 名 20 岁至 64 岁的人负担一名 65 岁以上的人，但到 2050 年，这个数字将下降到不足 2 人。其影响则是高额税收、延迟退休、储户实际收益降低等，甚至有可能出现政府预算危机。

【词汇】

1. **pensioner** /'penʃənər/ n. 专八 a person who is receiving a pension, especially from the government 领养老金(或退休金、抚恤金)者

例: The tax changes are good news for pensioners.

税收变化对于养老金领取者来说是个好消息。

2. **folk** /fəʊk/ n. people in general 人们

例: ordinary working-class folk

普通劳动大众

3. **levy** /'levi/ v. 雅思/托福/GRE/考研/专八 to use official authority to demand and collect a payment, tax, etc. 征收；征（税）

例：a tax levied by the government on excess company profits

政府对公司超额利润征收的税

4. **implication** /,ɪmplɪ'keɪʃn/ n. 四级/GRE/考研 a possible effect or result of an action or a decision 可能的影响（或作用、结果）

例：They failed to consider the wider implications of their actions.

他们没有考虑到他们的行动会产生更广泛的影响。

<同义替换> impact

5. **saver** /'seɪvər/ n. a person who saves money and puts it in a bank, etc. for future use 储户；存户

例：savers with the United Bank

联合银行的储户

【短语】

1. **draw on** : to use a supply of something that is available to you 凭借；利用；动用

例：I'll have to draw on my savings.

我只得动用我的存款了。

Low ratios of workers to pensioners are only one problem stemming from collapsing fertility. As we explain this week, younger people have more of what psychologists call “fluid intelligence”, the ability to think creatively so as to solve problems in entirely new ways .

适龄劳动力与养老金领取者的负担比例偏低只是生育率骤降所导致的问题之一。正如本周我们所阐释的那样，年轻人拥有更多心理学家所说的“流体智力”，即创造性思维能力，从而能以全新的方式解决问题。

【词汇】

1. **fluid** /'flu:ɪd/ n. 四级雅思考研 that can flow freely, as gases and liquids do 流动的；流体的

例：a fluid consistency

流体黏稠度

【短语】

1. **stem from** : (not used in the progressive tenses 不用于进行时) to be the result of something 是...的结果；起源于；根源是

例：Most people's insecurities stem from something that happened in their childhood.

大多数人的不安全感源于某种童年经历。

2. **fluid intelligence** : 流体智力 (Fluid Intelligence) 是一种以生理为基础的认知能力，如知觉、记忆、运算速度、推理能力等。

This **youthful** dynamism **complements** the accumulated knowledge of older workers. It also brings change. **Patents filed** by the youngest inventors are much more likely to cover breakthrough innovations. Older countries—and, it turns out, their young people—are less **enterprising** and less comfortable taking risks. Elderly **electorates ossify** politics, too. Because the old benefit less than the young when economies grow, they have proved less **keen** on **pro-growth** policies, especially housebuilding. **Creative destruction** is likely to be rarer in ageing societies, **suppressing** productivity growth in ways that compound into an enormous missed opportunity.

这种朝气蓬勃的活力与年长劳动力的知识积累形成互补。而且它也带来了变化。最年轻的发明家申请的专利更有可能有突破性的创新点。老龄人口较多的国家——事实证明，他们的年轻人——不那么有进取心，也不太愿意冒险。老龄化选民也会使政治僵化。因为当经济增长时，老年人比年轻人受益更少，所以事实证明他们对促进增长的政策也没什么热情，特别是对住房建设的政策。在老龄化社会中，“创造性破坏”可能会更加少见，抑制生产率增长，从而错失发展良机。

【词汇】

1. **youthful** /'ju:θfl/ adj. typical of young people 年轻人的；青年的；青春的

例：youthful enthusiasm/energy/inexperience

青春的激情 / 活力；年轻人的不谙世事

2. **complement** /'kɑ:mplɪmənt/ v. 六级/雅思/托福/考研/专八 to add to something in a way that improves it or makes it more attractive 补充；补足；使完美；使更具吸引力

例：The excellent menu is complemented by a good wine list.

佳肴佐以美酒，堪称完美无缺。

3. **patent** /'pætənt/ n. 六级/雅思/GRE/考研/专八 an official right to be the only person to make, use or sell a

product or an invention; a document that proves this 专利；专利证书

例：The device was protected by patent.

这一装置受专利保护。

4. **file** /faɪl/ v. to present something so that it can be officially recorded and dealt with 提起（诉讼）；提出（申请）；送交（备案）

例：He filed to divorce his wife.

他提交了与妻子离婚的申请。

5. **enterprising** /'entəpraɪzɪŋ/ adj. GRE having or showing the ability to think of new projects or new ways of doing things and make them successful 有事业心的；有进取心的；有创业精神的

例：an enterprising young woman 一个进取的年轻女子

6. **electorate** /ɪ'lektərət/ n. the people in a country or an area who have the right to vote, thought of as a group (一国或一地区的) 全体选民

例：Only 60 per cent of the electorate voted in the last election.

在上次选举中，只有 60% 的选民投票。

7. **ossify** /'ɑ:sɪfaɪ/ v. GRE to become or make something fixed and unable to change (使) 僵化；(使) 固定不变

例：an ossified institution.

僵化的机构

8. **keen** /ki:n/ adj. wanting to do something or wanting something to happen very much 渴望；热切；热衷于

例：John was very keen to help.

约翰很热心，愿意帮忙。

<同义替换> passionate

9. **pro-** /prəʊ/ prefix. (in adjectives 构成形容词) in favour of; supporting 拥护；支持；亲

例：pro-democracy

拥护民主

***pro-growth** 促增长的，支持增长的

10. **suppress** /sə'pres/ v. 六级/雅思/考研/专八 to prevent something from growing, developing or continuing 压制；阻止；抑制

例：drugs that suppress the appetite

抑制食欲的药

【专有表达】

1. **creative destruction**：创造性破坏理论 (Schumpeter's creative destruction)。创造性破坏理论是伟大的经济学

家熊彼特最有名的观点，这是其企业家理论和经济周期理论的基础。在熊彼特(1883~1950)看来，“创造性破坏”是资本主义的本质性事实，重要的问题是研究资本主义如何创造并进而破坏经济结构，而这种结构的创造和破坏主要不是通过价格竞争而是依靠创新的竞争实现的。每一次大规模的创新都淘汰旧的技术和生产体系，并建立起新的生产体系。

【长难句】

Creative destruction is likely to be rarer in ageing societies, suppressing productivity growth in ways that compound into an enormous missed opportunity.

句子的主干部分为：Creative destruction is likely to be rarer in ageing societies，意思是：在老龄化社会中，“创造性破坏”可能会更加少见

suppressing productivity growth in ways that compound into an enormous missed opportunity.为结果状语，意思是：导致生产率增长被抑制，从而错失发展良机。

其中 that compound into an enormous missed opportunity 为定语从句，修饰 ways，意思是：从而错失发展良机

All things considered, it is tempting to cast low fertility rates as a crisis to be solved. Many of its underlying causes, though, are in themselves welcome. As people have become richer they have tended to have fewer children. Today they face different trade-offs between work and family, and these are mostly better ones. The populist conservatives who claim low fertility is a sign of society's failure and call for a return to traditional family values are wrong. More choice is a good thing, and no one owes it to others to bring up children.

考虑到以上所有因素，人们很容易将低生育率视为一场有待解决的危机。然而，造成低生育率的许多潜在原因本身就是广受追捧的。随着人们越来越富有，他们越会少生孩子。如今，他们在工作 and 家庭之间面临着不同的权衡，而这些权衡大多是对自身更有益的。民粹主义保守派声称低生育率是社会倒退的标志并呼吁回归传统家庭价值观的观点是错误的。更多的选择是一件好事，更没有人就该为别人抚养孩子。

【词汇】

1. **tempting** /'temptɪŋ/ adj. something that is tempting is attractive, and makes people want to have it, do it, etc. 吸引人的；诱人的；有吸引力的

例：That cake looks very tempting.

那蛋糕的样子让人嘴馋。

<同义替换> appealing

2. **cast** /kæst/ v. 四级/雅思/考研 to describe or present somebody/yourself in a particular way 把某人描写成；把某人表现为

例：Holland would never dare cast himself as a virtuoso pianist.

荷兰永远不敢说自己是位钢琴名家。

3. **underlying** /ˌʌndərˈlaɪɪŋ/ adj. 雅思/考研 important in a situation but not always easily noticed or stated clearly 根本的；潜在的；隐含的

例：Unemployment may be an underlying cause of the rising crime rate.

失业可能是犯罪率攀升的潜在原因。

4. **trade-off** /ˈtreɪd ɔ:f/ n. the act of balancing two things that are opposed to each other (在相互对立的两者间的) 权衡，协调

例：a trade-off between increased production and a reduction in quality

对产量增加和质量下降的权衡

<同义替换> balance

5. **populist** /ˈpɒ:pjəlɪst/ adj. believing in or supporting populism (= a type of politics that claims to represent the opinions and wishes of ordinary people) 平民政治；民粹主义；民意论

例：a populist leader

~主义领袖

6. **owe** /əʊ/ v. 四级/雅思/考研 to have to pay somebody for something that you have already received or return money that you have borrowed 欠(债)；欠(账)

例：She still owes her father £3 000.

她还欠她父亲 3 000 英镑。

【长难句】

The populist conservatives who claim low fertility is a sign of society's failure and call for a return to traditional family values are wrong.

句子的主干部分为：The populist conservatives are wrong. 意思是民粹主义保守派（的观点）是错误的。

who claim low fertility is a sign of society's failure and call for a return to traditional family values 为并列的定语从句，修饰 conservatives，意思是：声称低生育率是社会倒退的标志并呼吁回归传统家庭价值观的

Unleashing the potential of the world's poor would ease the shortage of educated young workers without more

不需要更多的新生儿，通过释放世界上贫困人口的发展潜力就可以缓解年轻知识分

births. Africa's **pool** of young people will continue to grow for decades. Boosting their skills is desirable in itself, and might also cast more young migrants as innovators in **otherwise-stagnant** economies. Yet encouraging development is hard—and the sooner places get rich, the sooner they get old.

子劳动人口短缺的局面。在未来的几十年，非洲的年轻人数量将继续增长。提高他们的技能本身是可取的，而且可能把更多的年轻移民打造成创新者，为那些停滞不前的经济体效力。然而，鼓励发展是个难题——致富越快，老龄化就越快。

【词汇】

1. **unleash** /ʌnˈliːʃ/ v. **专八** to suddenly let a strong force, emotion, etc. be felt or have an effect 发泄；突然释放；使爆发

例：The government's proposals unleashed a storm of protest in the press.

政府的提案引发了新闻界的抗议浪潮。

2. **pool** /puːl/ n. a group of people available for work when needed (统称) 备用人员

例：a pool of cheap labour

廉价后备劳力

3. **otherwise** /ˈɒðərwaɪz/ adv. in a different way to the way mentioned; differently 以其他方式；另；亦

例：Even when common sense would suggest otherwise, optimism reigns.

即使常识表明并非如此，乐观仍然占主导地位。

4. **stagnant** /ˈstægnənt/ adj. **雅思/GRE/专八** not developing, growing or changing 停滞的；不发展的；无变化的

例：a stagnant economy

停滞的经济

Eventually, therefore, the world will have to **make do with** fewer youngsters—and perhaps with a shrinking population. With that in mind, recent advances in AI could not have come at a better time. An **über**-productive AI-**infused** economy might find it easy to support a greater number of retired people. Eventually AI may be able to generate ideas by itself, reducing the need for human intelligence. Combined with **robotics**, AI may also make caring for the elderly less labour-intensive. Such

因此，最终，我们不得不面对一个年轻人数量更少的世界——也许还有不断减少的人口。鉴于此，人工智能的最新发展来得正是时候。一个拥有超级生产力的人工智能经济体能为更多的退休人员提供支持。最终，人工智能可能会自行产生想法，减少对人类智力的需求。通过与机器人技术相结合，人工智能也可能使照顾老人变成一个劳动密集度

innovations will certainly be in high demand.

不那么高的行业。未来，此类创新无疑会有很高的需求。

【词汇】

1. **über-** /u: bər/ (in nouns and adjectives 构成名词和形容词) of the greatest or best kind; to a very large degree 最好的；超级的

例：This stylish new restaurant is futuristic and uber-cool.

这家时尚的新餐馆设计极其超前，真是超酷。

2. **infuse** /ɪn'fju:z/ v. 托福/GRE/专八 to have an effect on all parts of something 全面影响

例：Technology infuses all aspects of our lives.

科技影响着我们生活的各个方面。

3. **robotics** /rəʊ'bɔ:tɪks/ n. the science of designing and operating robots 机器人科学（或技术）

例：Robotics seems to be a sexy subject at the moment.

机器人学眼下似乎是时髦的学科。

【短语】

1. **make do with** : manage with the limited or inadequate means available. 将就..., 凑合着...

例：Dad would have to make do with an old car.

爸爸只好将就使用旧车。

If technology does allow **humanity** to overcome the baby bust, it will fit the historical pattern. Unexpected productivity advances meant that demographic **time-bombs**, such as the mass starvation predicted by Thomas Malthus in the 18th century, failed to **detonate**. Fewer babies means less human genius. But that might be a problem human genius can fix.

如果技术确实让人类克服了“婴儿荒”，那么它将符合历史发展模式。令人惊叹的生产力进步意味着“人口定时炸弹”——比如托马斯·马尔萨斯在18世纪时预言的大规模饥饿——就不会爆发。更少的新生儿意味着更少的人类天才。但是，那或许是一个人类天才才能够解决的问题。

【词汇】

1. **humanity** /hju: 'mænəti/ n. 六级/雅思/GRE/考研/专八 people in general (统称) 人；人类

例：We want a clean healthy environment for all humanity.

我们希望全人类拥有一个干净健康的生存环境。

2. **time-bomb** /'taɪm bɔ:m/ n. a situation that is likely to cause serious problems in the future 潜在危险；隐患

例：He described global warming as 'an environmental time bomb ticking away'.

他把全球变暖描绘成“正在滴答作响的定时炸弹”。

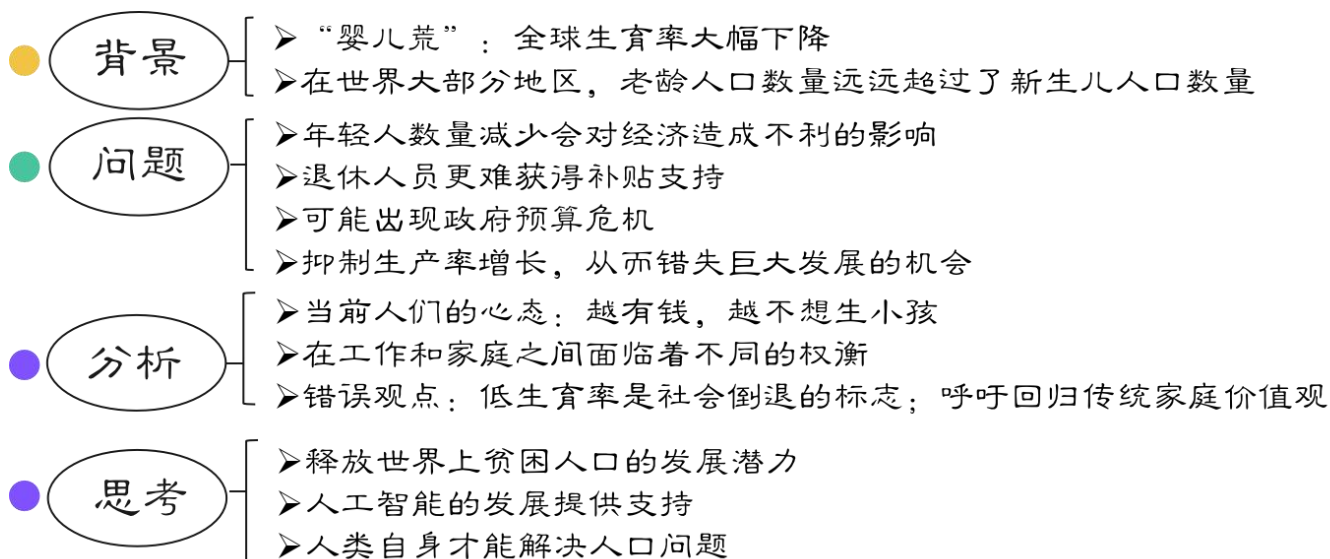
3. **detonate** /'detəneɪt/ v. GRE/专八 to explode, or to make a bomb or other device explode (使)爆炸；引爆；起爆

例：Two other bombs failed to detonate.

另外两枚炸弹未引爆。

总结

1) 文章架构



2) 同义替换

✓ 下降；下跌

collapse

Global fertility has collapsed, with profound economic consequences

全球生育率大幅下降，带来了深远的经济后果

shrink

As the old die and are not fully replaced, populations are likely to shrink.

随着老龄人口死亡并且其数量还没有被新生儿数量完全替代，那么总人口可能会减少。

其他：diminish/fall/decrease/drop

例：The world's resources are rapidly diminishing.

世界资源正在迅速减少。

✓ 人们

folk

Retired folk draw on the output of the working-aged...

退休人口需要依靠适龄劳动力的产出来维持生活...

inhabitant

By 2030 more than half the inhabitants of East and South-East Asia will be over 40.

到 2030 年，东亚和东南亚一半以上的居民将超过 40 岁。

其他：people/citizen

例： There were a lot of people at the party.

有许多人参加聚会。

3) 一词多义

✓ file

✓ 文章原句： Patents filed by the youngest inventors are much more likely to cover breakthrough innovations. 最年轻的发明家申请的专利更有可能有突破性的创新点。

✓ 释义：

① to present something so that it can be officially recorded and dealt with 提起（诉讼）；提出（申请）；送交（备案）

He ~ to divorce his wife.

他提交了与妻子离婚的申请。

② (of a journalist 记者) to send a report or a story to your employer 发送（报道给报社）

He had to rush back to the office and ~ a housing story before the secretaries went home.

他不得不冲回办公室，赶在秘书们回家之前提交一篇有关住房的新闻报道。

③ to walk in a line of people, one after the other, in a particular direction 排成一行行走

The long line of mourners ~ silently past.

一长队哀悼者默默地走过。

④ to cut or shape something or make something smooth using a file 锉平；锉去；锉薄；锉光滑

Manicurists are skilled at shaping and ~ nails.

美甲师修锉指甲的手艺娴熟。

✓ **owe**

✓ 文章原句：More choice is a good thing, and no one owes it to others to bring up children. 更多的选择是一件好事，更没有人生育孩子是因为欠别人的。

✓ 释义：

① **to have to pay somebody for something that you have already received or return money that you have borrowed** 欠（债）；欠（账）

She still ~ her father £3 000.

她还欠她父亲 3 000 英镑。

② **to exist or be successful because of the help or influence of somebody/something** 归因于；归功于；起源于

He ~ his success to hard work.

他的成功是靠勤奋工作。

③ **to have to obey and support somebody who is in a position of authority or power**（对位高权重者）忠诚，服从

All serfs ~ allegiance to a lord.

所有农奴都效忠于主。

4) 仿写训练

✓ 描述某种趋势的意义

✓ 文章原句：

All things considered, it is tempting to cast low fertility rates as a crisis to be solved. Many of its underlying causes, though, are in themselves welcome. As people have become richer they have tended to have fewer children. Today they face different trade-offs between work and family, and these are mostly better ones. The populist conservatives who claim low fertility is a sign of society's failure and call for a return to traditional family values are wrong.

✓ 句型及表达：

As...have become more...they are more... 随着...越来越..., ...越来越...

it is...to cast...as... 把...视为...是...的

Many of its..., though, are in themselves... 但是，它的许多...本身就...

✓ 仿写示例：

As families have become richer they are more likely to send their children to study abroad. It is prevalent to cast studying abroad as a fashion to follow. Many of its underlying reasons, though, are in themselves welcome. By studying abroad, you will experience new perspectives, learn how to navigate different cultures, work with diverse peers, and hone your language skills.

✓ 仿写作业——描述旅行趋势的意义

随着人们越来越有钱，他们更有可能享受旅行。近期，人们普遍把旅行当作一种时尚。然而，旅行的许多潜在原因本身就是受欢迎的。今天，当人们面临着工作和生活之间不同的权衡时，一个人从旅行中收获的益处不仅适用于他或她的个人生活，也适用于工作生活。

5) 主题词总结

今日主题——生育率	
1. baby-bust	婴儿荒
2. collapse	大幅下跌；骤降
3. fertility	生育率
4. demographic	人口统计
5. replacement rate	人口替代率
6. pensioner	领取养老金的人
7. population	人口