



Five Misunderstandings About Government Debt

October 2012

Passion to Perform

Torsten Slok, Ph.D.
Chief International Economist
Managing Director
60 Wall Street
New York, New York 10005
Tel: 212 250 2155
Torsten.Slok@db.com

All prices are those current at the end of the previous trading session unless otherwise indicated. Prices are sourced from local exchanges via Reuters, Bloomberg and other vendors. Data is sourced from Deutsche Bank and subject companies. Deutsche Bank does and seeks to do business with companies covered in its research reports. Thus, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. DISCLOSURES AND ANALYST CERTIFICATIONS ARE LOCATED IN APPENDIX 1. MICA(P) 072/04/2012.

Five misunderstandings about government debt



1. **By definition: Assets = liabilities.** This means that saying that “there is too much debt in the world” is the same as saying “there are too many assets in the world”. But is “too many assets in the world” a problem that's holding back growth?
2. **It is not the amount of debt outstanding that matters but the market’s assessment whether the borrower can pay back the debt.** Japan as an example.
3. **The transmission channel from high debt to growth is via high interest rates.** If US long-term interest rates remain unaffected by government debt levels then US government debt levels may never be a problem.
4. **Causality tests show that growth explains future debt.** Debt does not explain future growth.
5. **Growth is not always driven by credit.** In many countries, for example Germany, growth is driven by exports and not by debt accumulation.

Source: DB Global Markets Research



1. By accounting definition:

Assets = liabilities

In other words, every outstanding asset (equity, bonds, etc) is held by some investor. But what does it mean to say that “There are too many assets in the world?” And is that a problem for future growth?

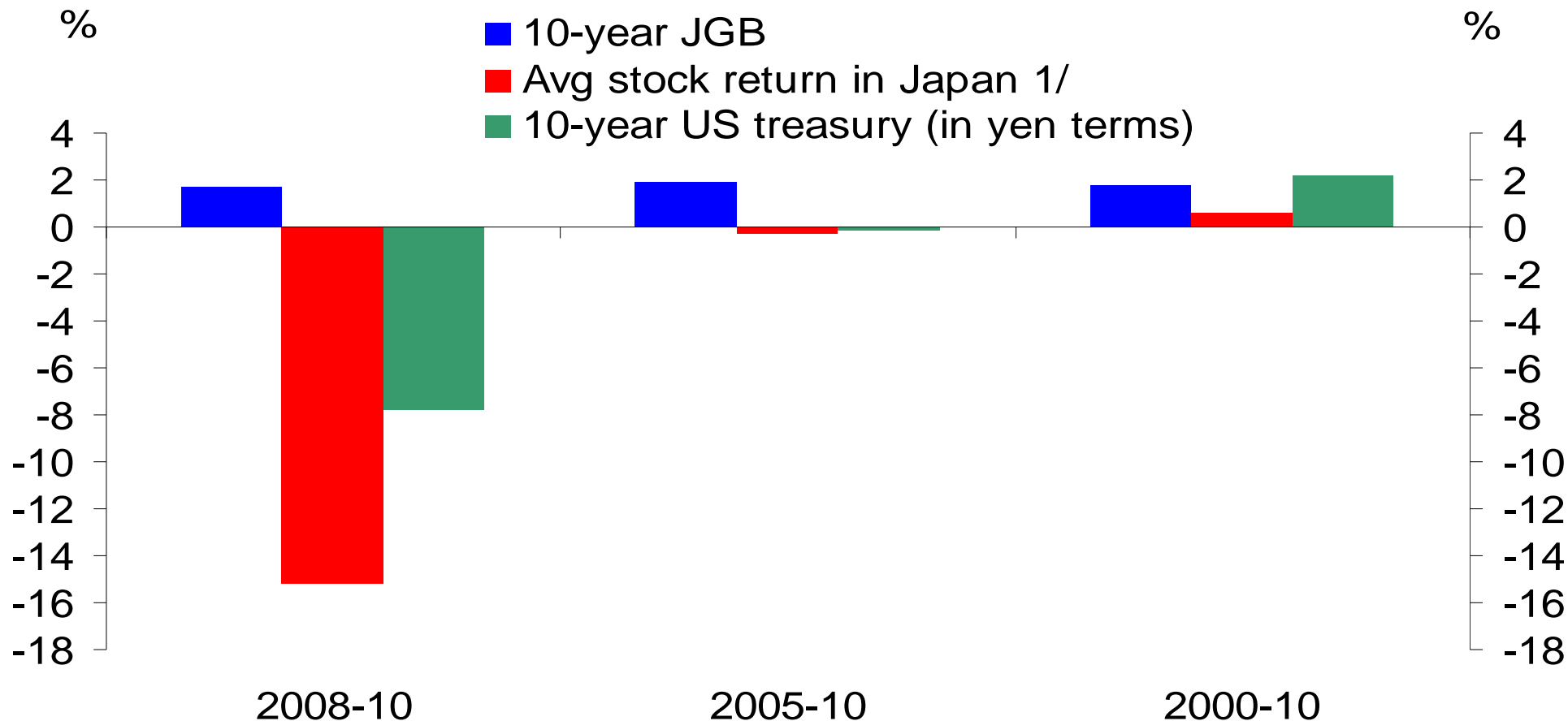


2. It makes sense to talk about the quality of the assets outstanding. It is not the amount of debt outstanding that matters but the market's assessment whether the borrower can pay back the debt. Is US government debt a high-quality asset? Could US government debt reach Japanese levels with no impact on US rates? Japan as an example.

For Japanese investors JGBs look attractive



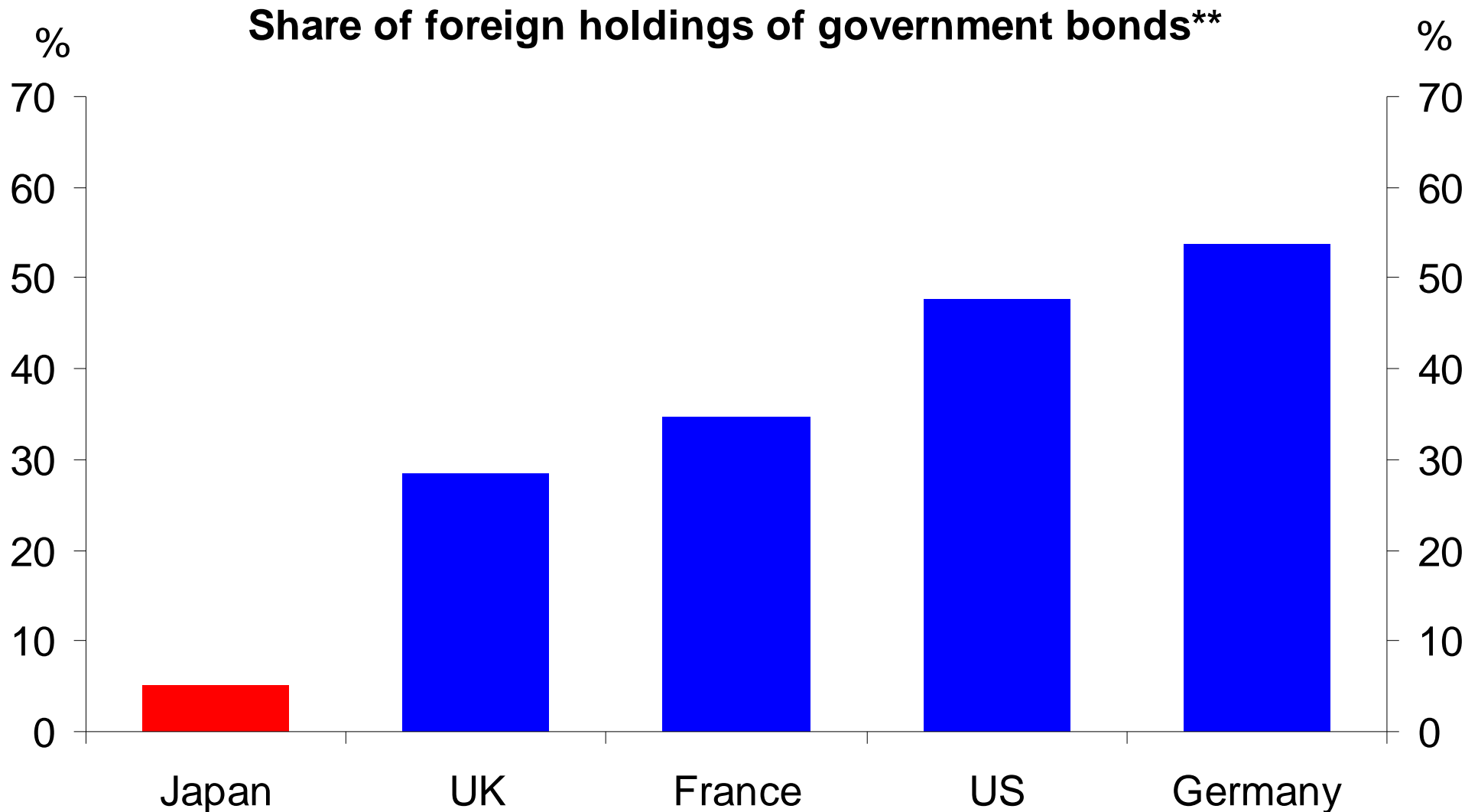
Average annual return



1/ Consisting of capital gains and dividend payouts.

Source Japan Securities Research Institute; IMF WEO and IFS databases., DB Global Markets Research

Foreigners own only 5% of JGBs



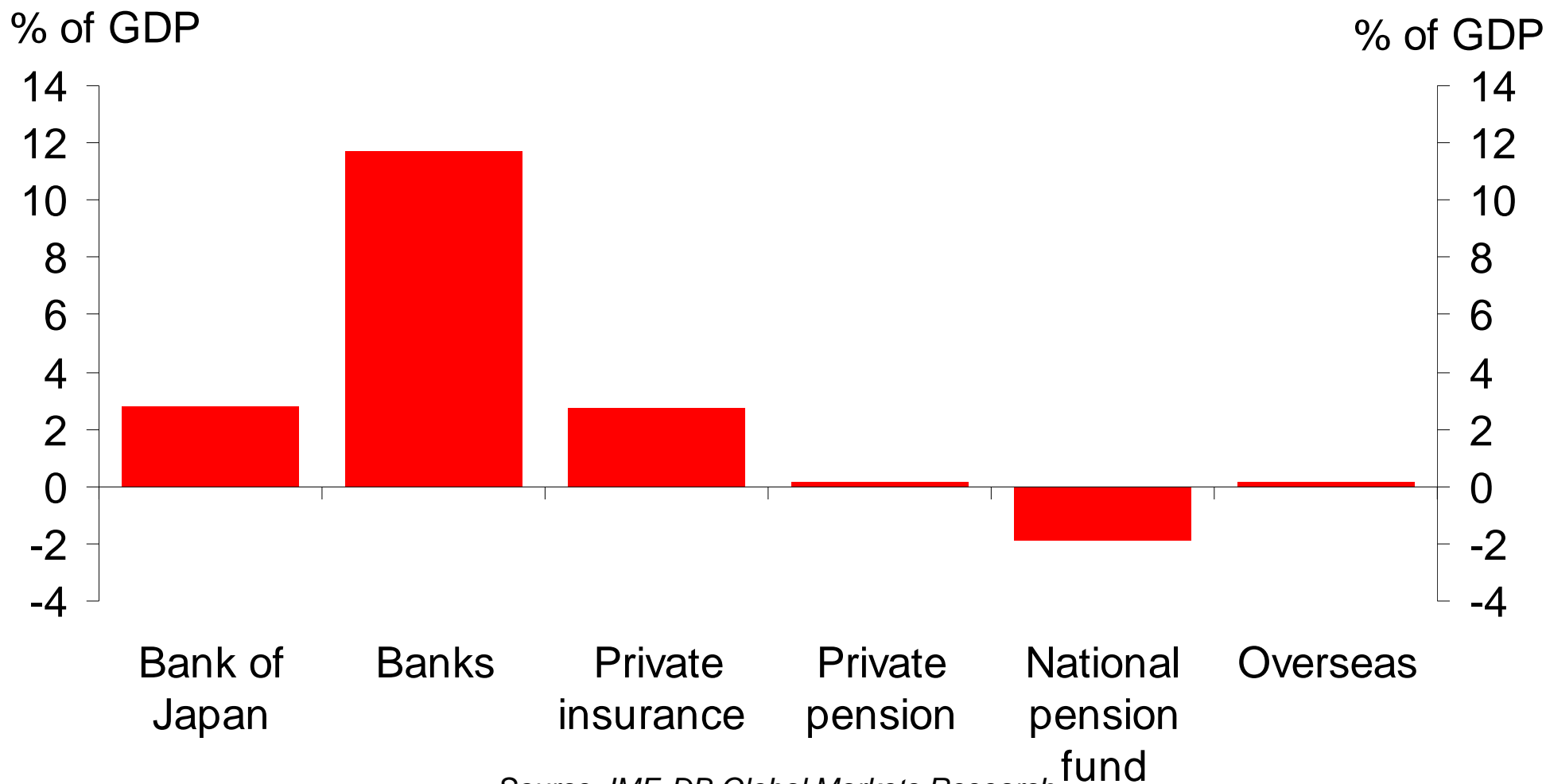
**Data for Japan , US and UK as of Dec. 2009 and for Germany and France as of Sep 2009 and June 2009 respectively

Source *Debt Management Report 2010, Ministry of Finance Japan, DB Global Markets Research*

Japanese banks have been increasing their holdings of Japanese government bonds



Japan: net increase in holdings of JGBs, 2009-10

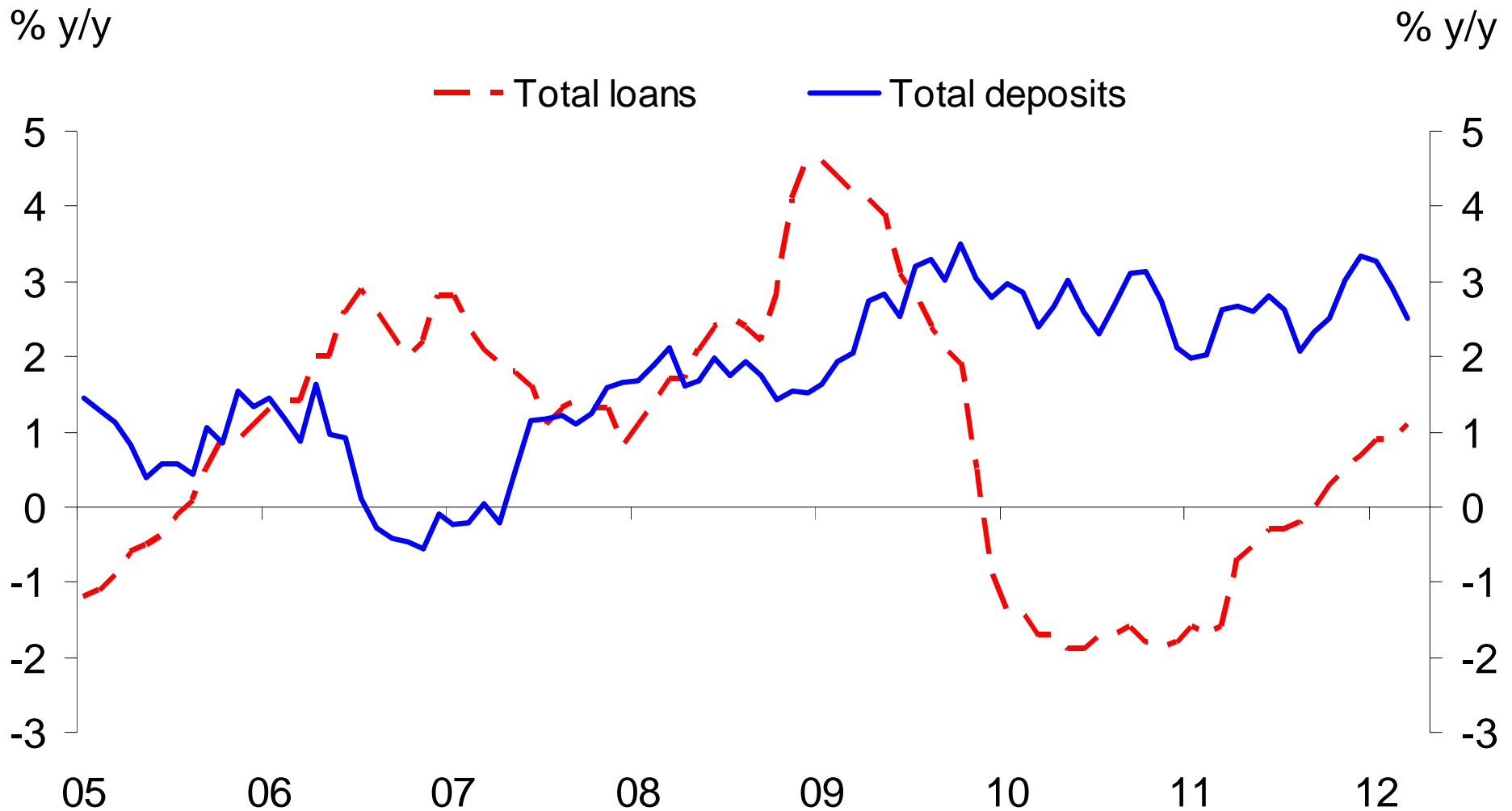


Source IMF, DB Global Markets Research

Japanese banks: Deposit growth higher than loan growth



Bank lending and deposits (year-on-year percent changes)

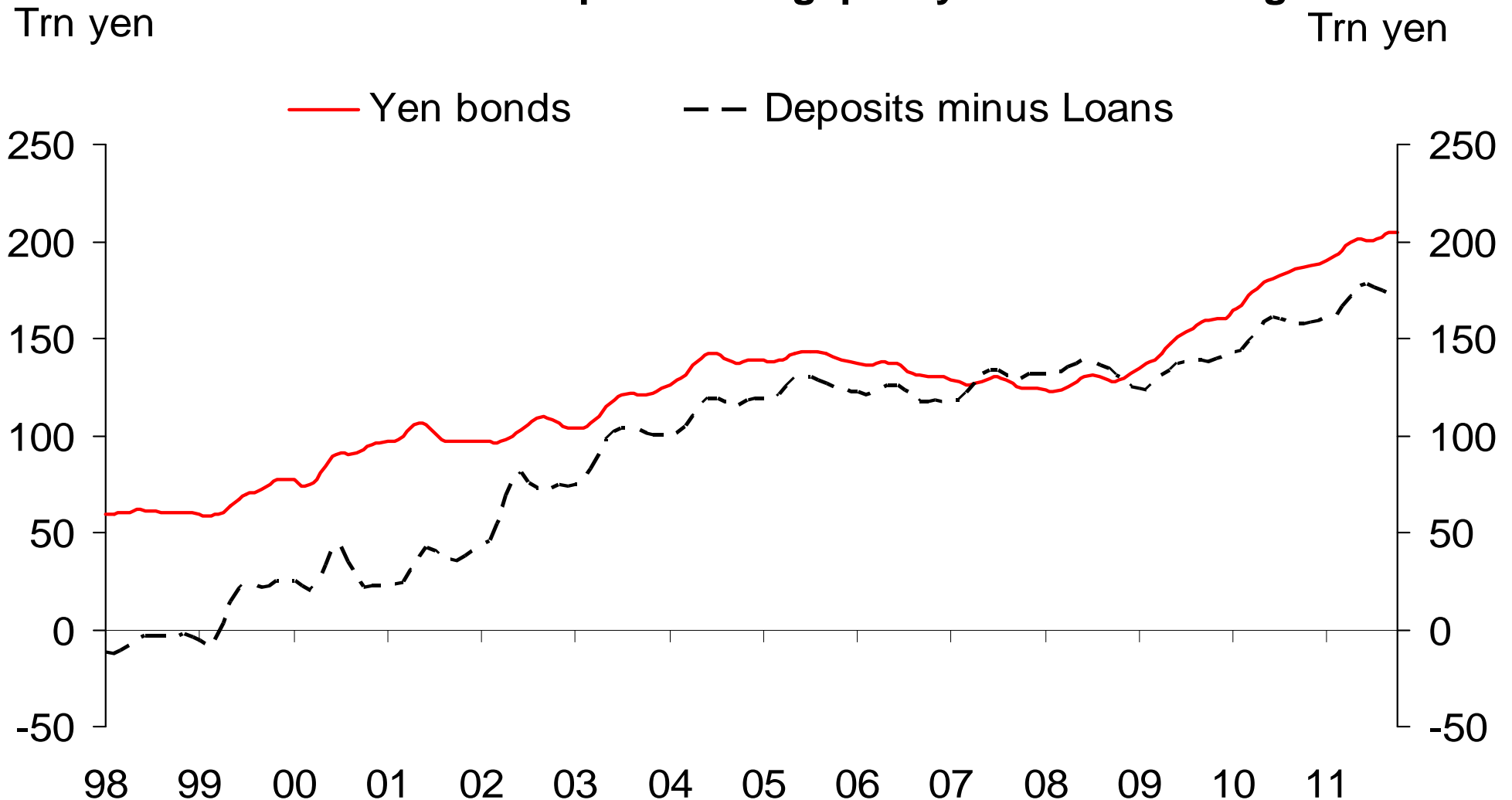


Source Bank of Japan, Bloomberg Finance LP, DB Global Markets Research

Japanese banks buying JGBs for their surplus deposits



Domestic banks: deposit-loan gap vs yen bond holdings

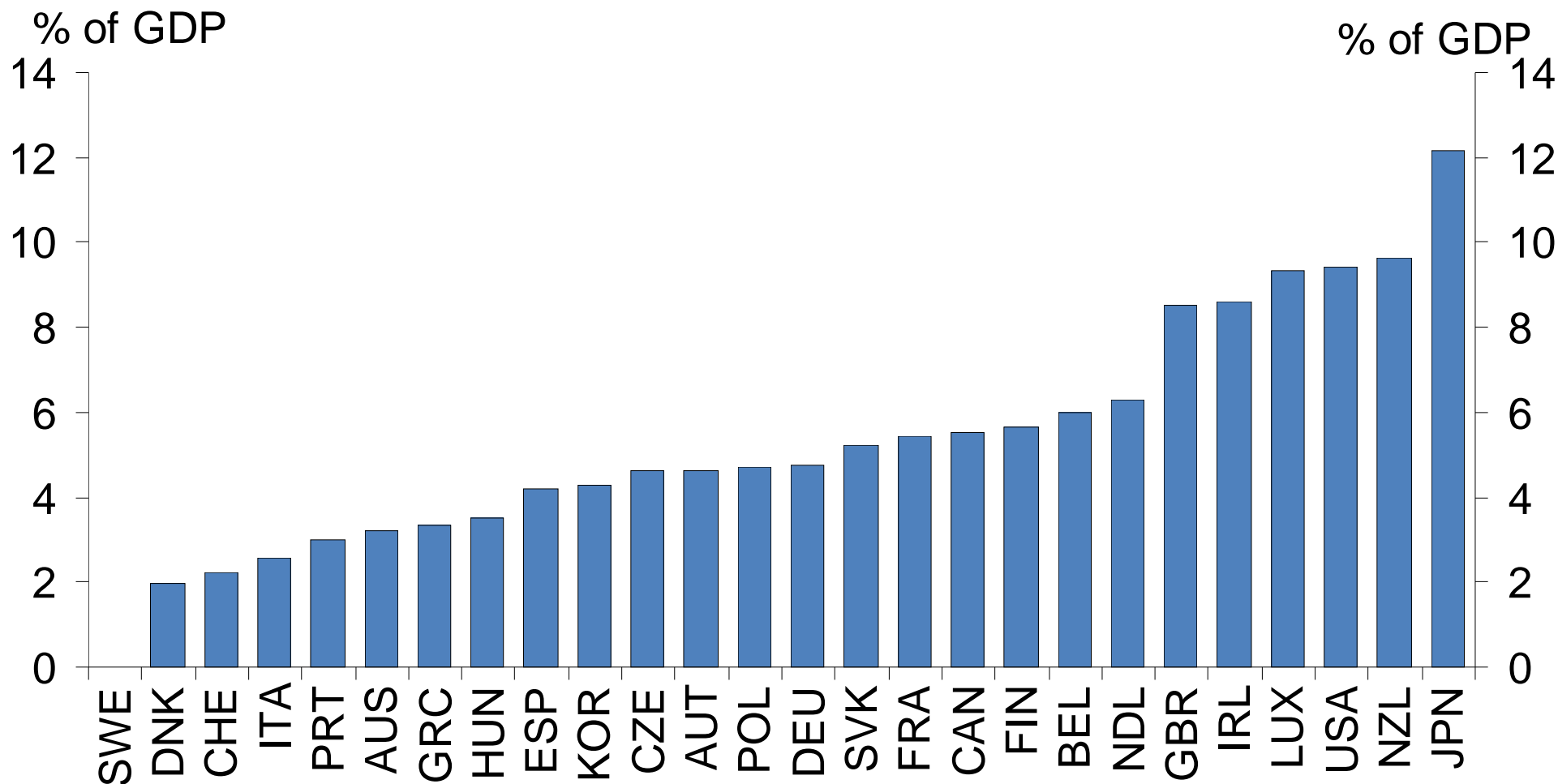


Source Bank of Japan, DB Global Markets Research

Japanese fiscal situation is unsustainable but Japanese rates are still very low



**Immediate rise in the underlying primary balance needed to
bring gross financial liabilities to 50% of GDP in 2050**



Source OECD, DB Global Markets Research



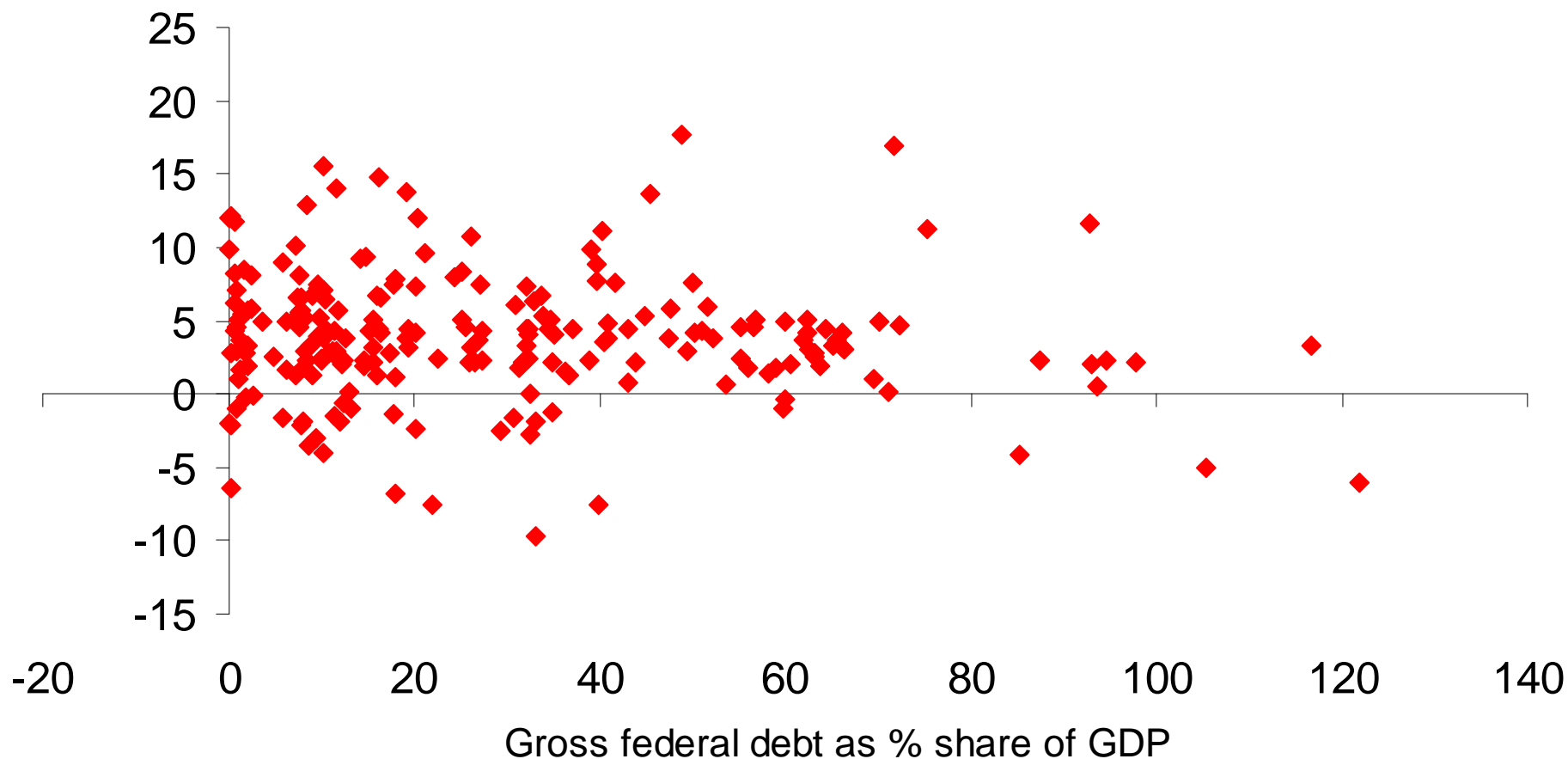
3. What is the link from high debt levels to growth?



No relationship between US growth and government debt levels

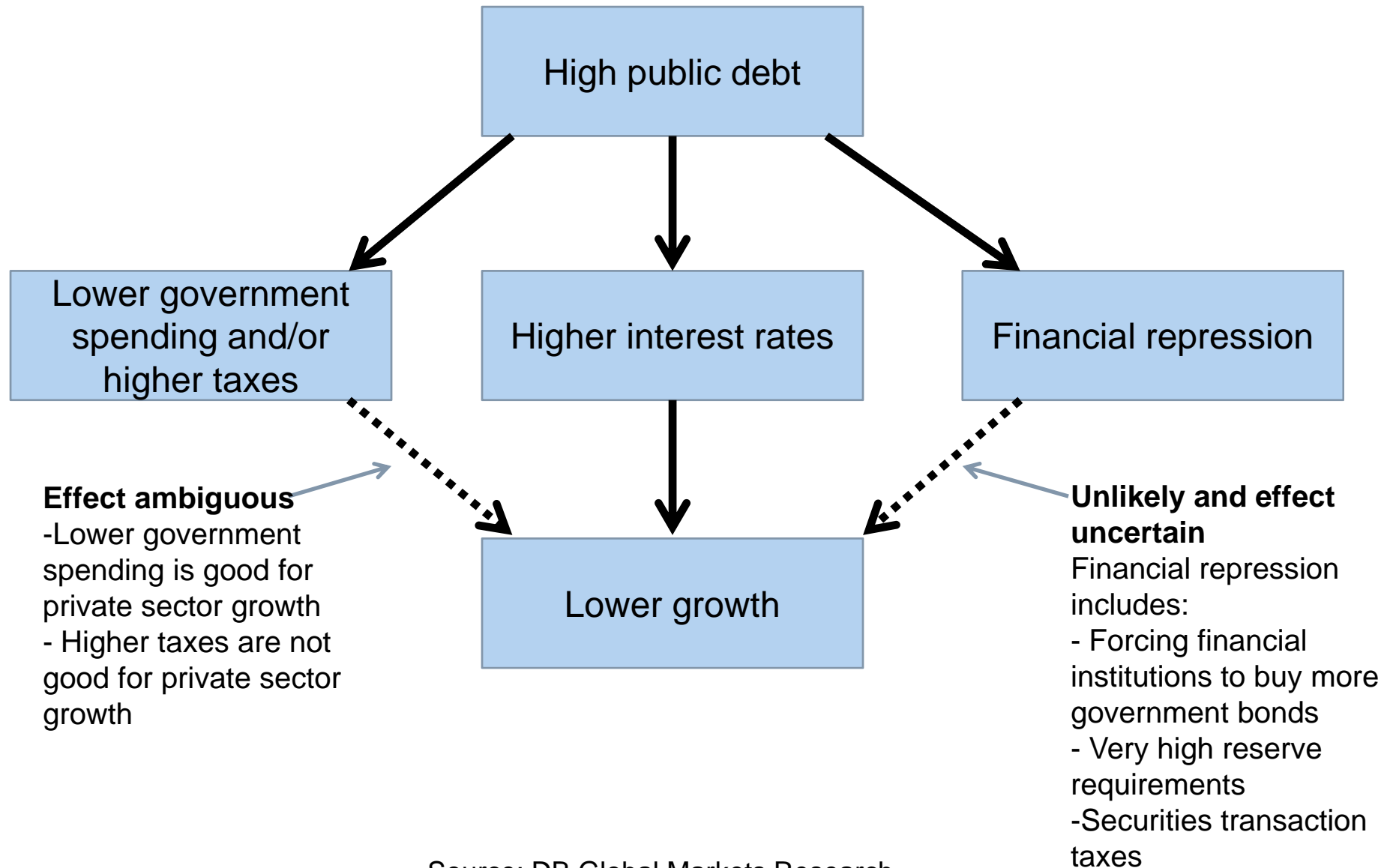
U.S growth rate and debt levels, 1793-2011

Growth of Real GDP (%)



Source: BEA, DB Global Markets Research

Higher debt levels impact growth via higher borrowing costs



Source: DB Global Markets Research



If US long-term interest rates remain unaffected by government debt levels then US government debt levels may never be a problem for US GDP growth. It is often argued that long US rates are low because the USD is a reserve currency. USD likely to continue to be the reserve currency for many more years.

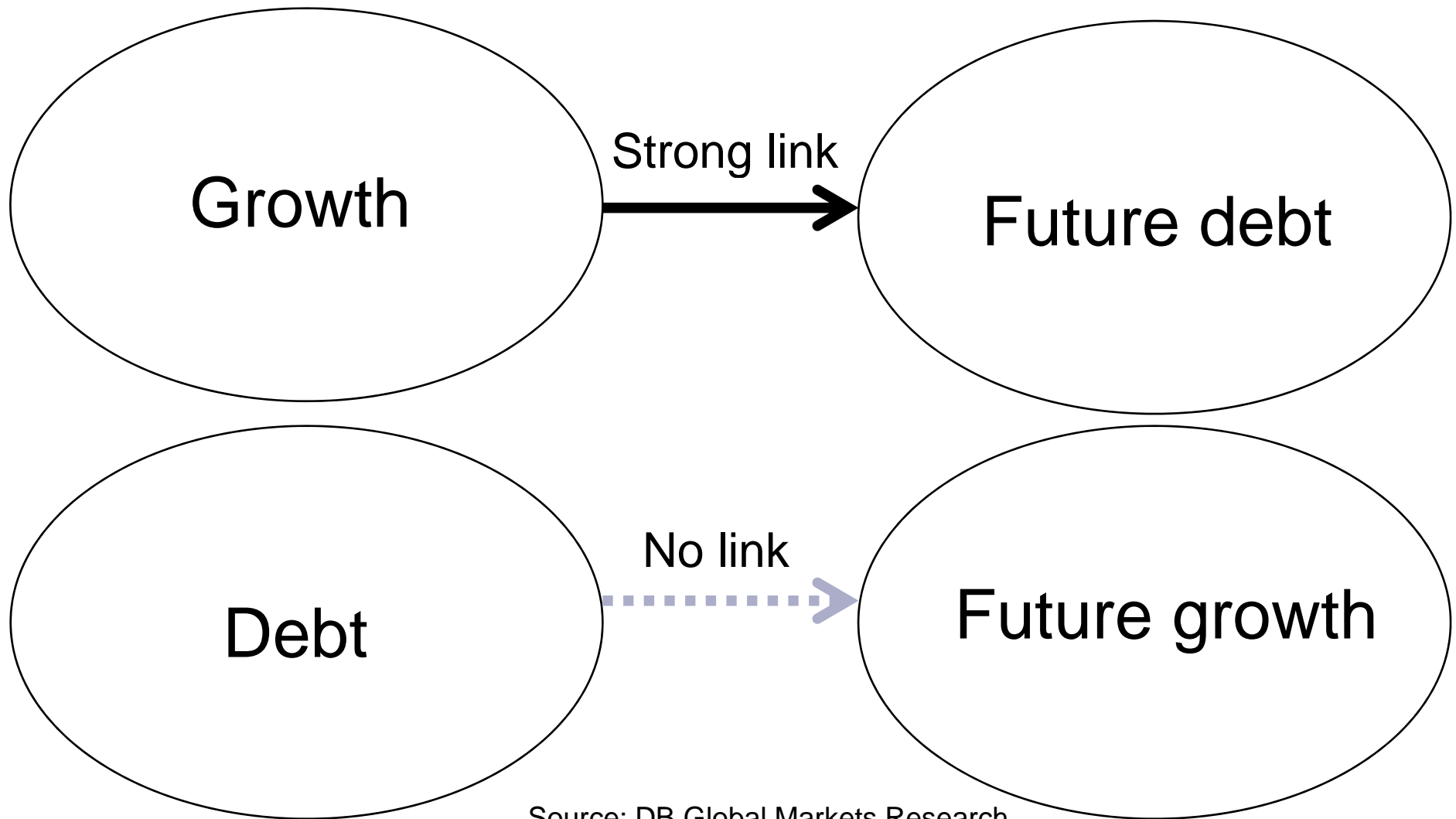


4. Growth predicts debt. Debt doesn't predict growth

Changes in debt don't significantly explain future growth

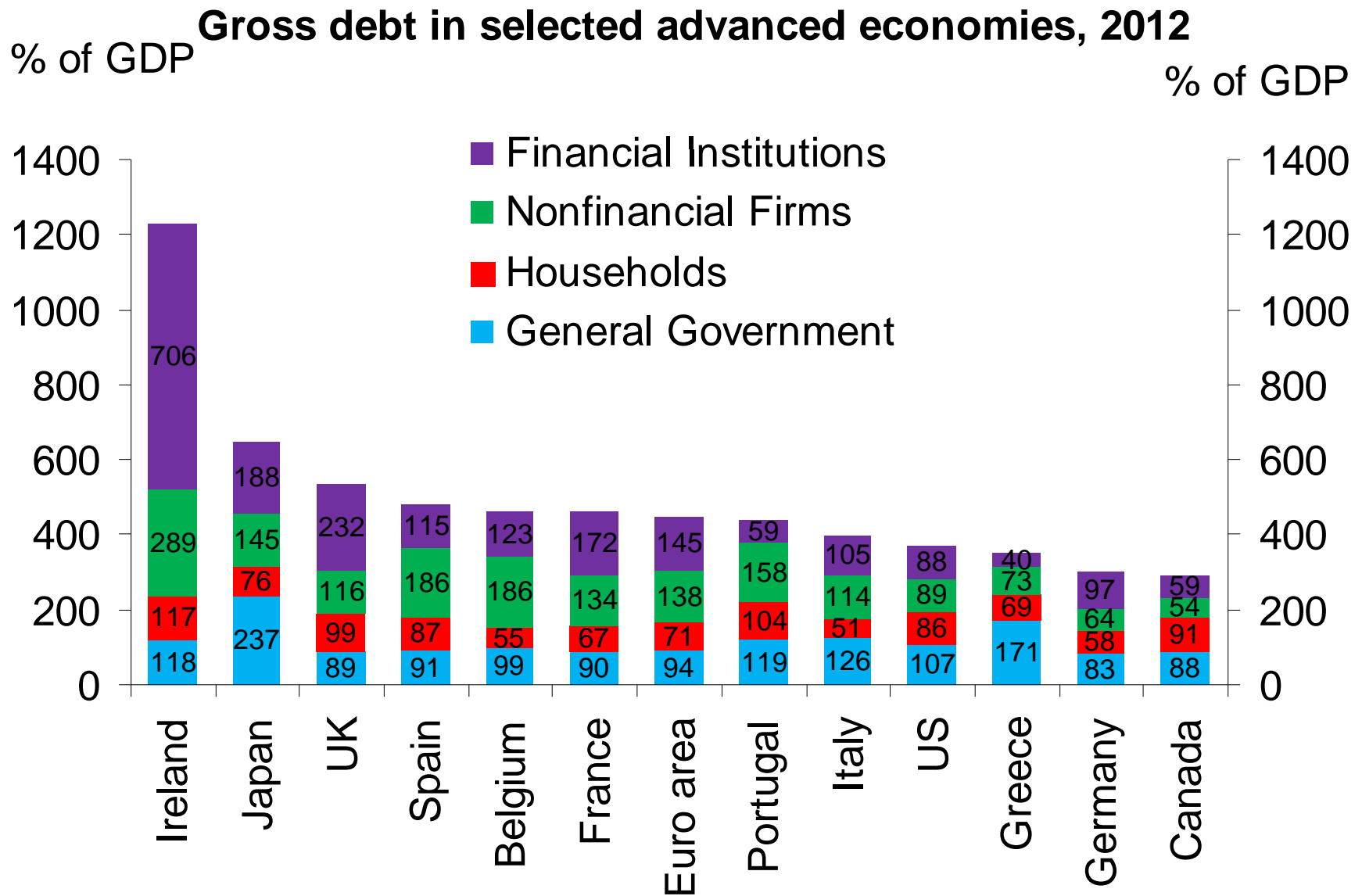


Pair-wise Granger-causality tests



Source: DB Global Markets Research

US aggregate leverage is low



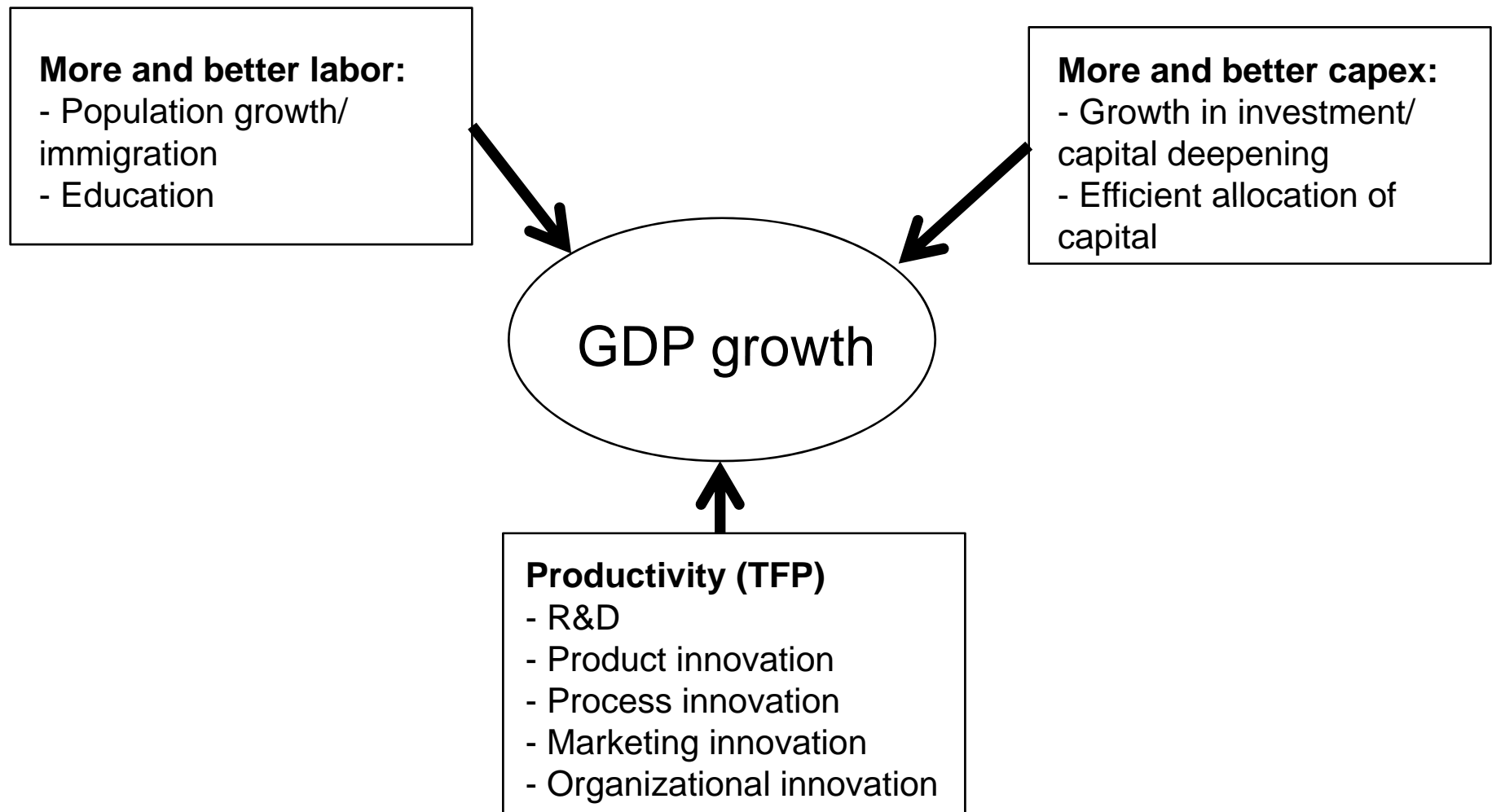
Source: IMF, DB Global Markets Research



5. Growth is not only driven by debt

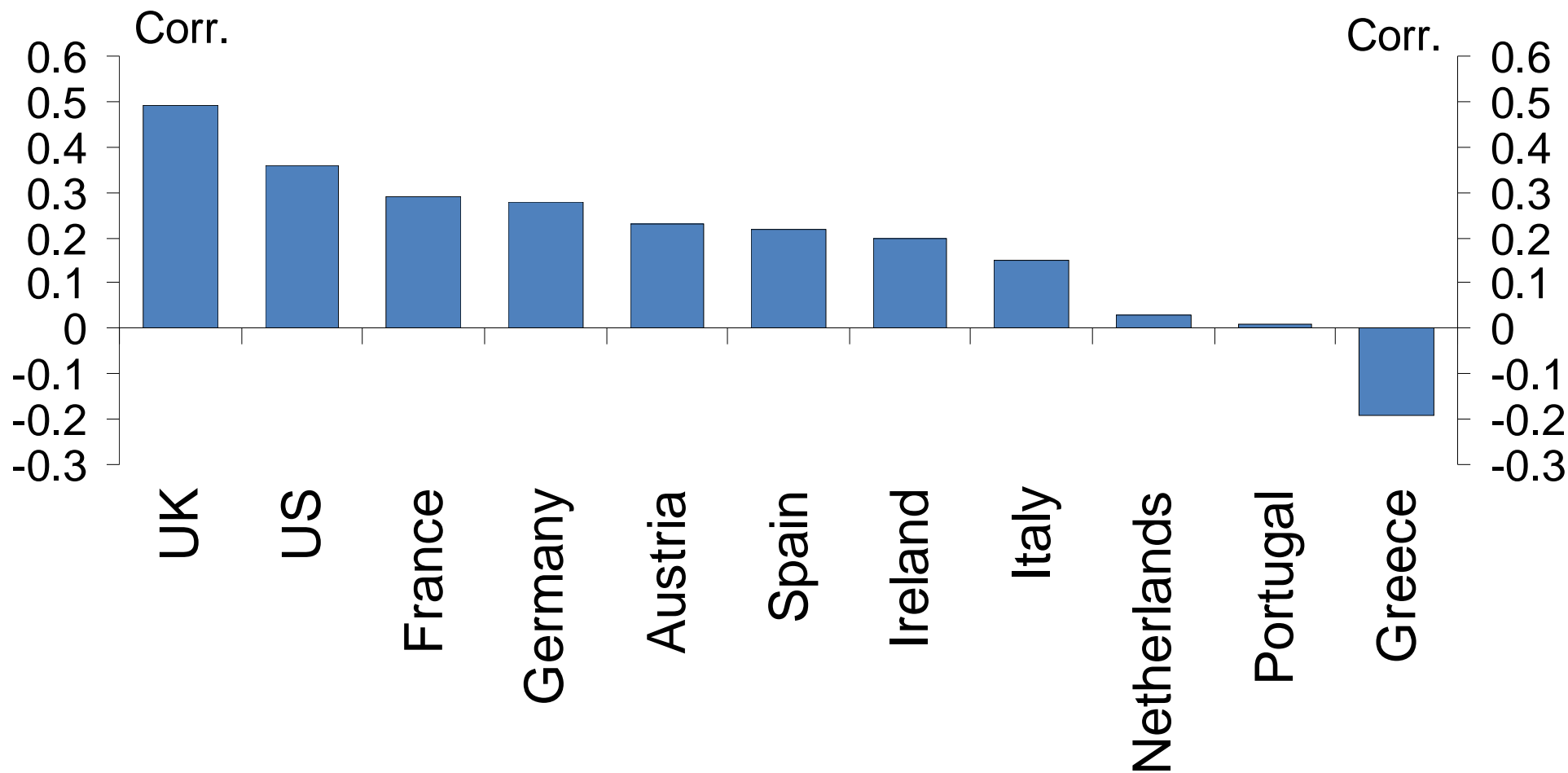


Sources of GDP growth. Credit is used to finance labor, capital, or R&D.



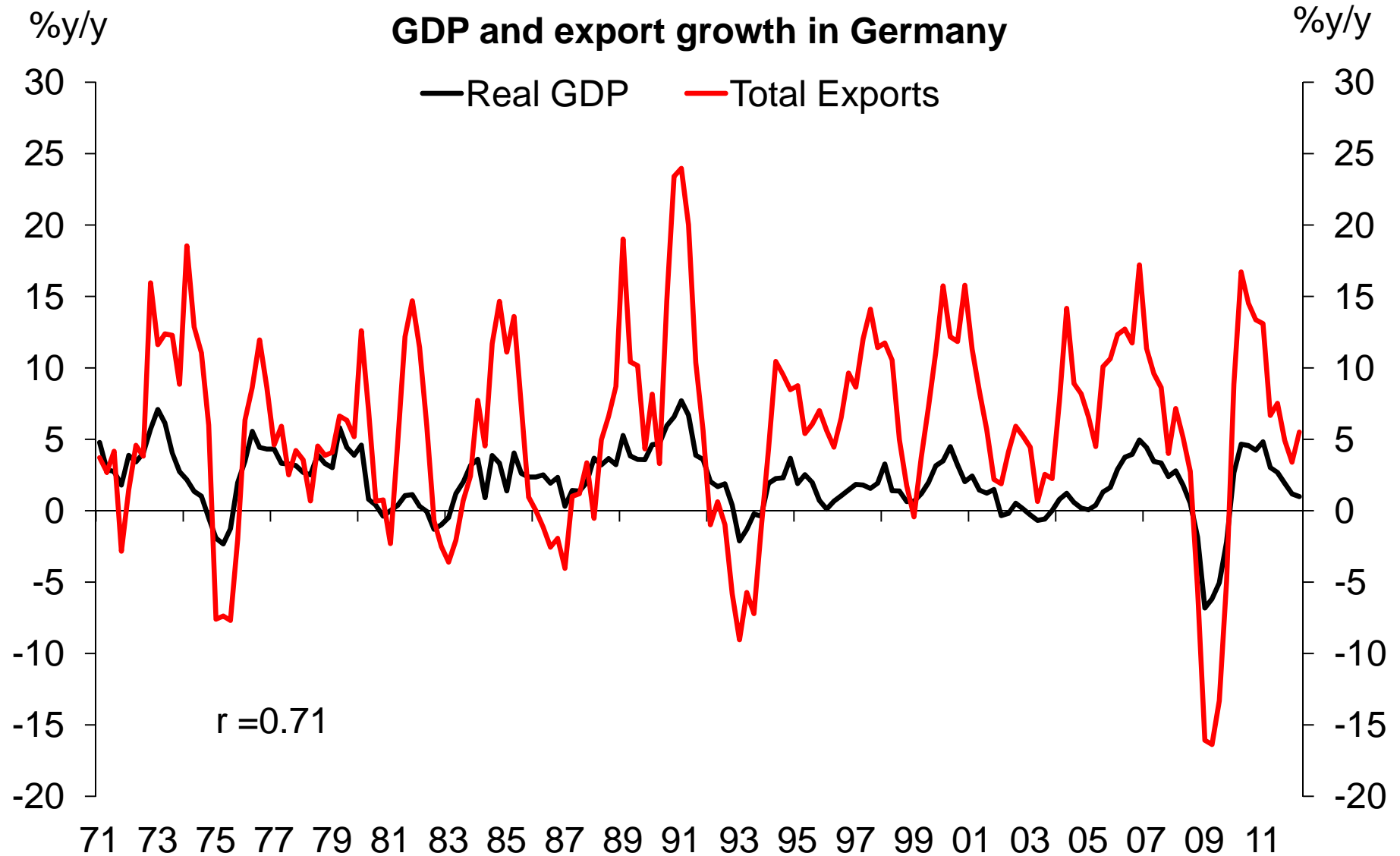


Correlation between GDP growth and credit growth, 1980-2010: Highest in UK and US



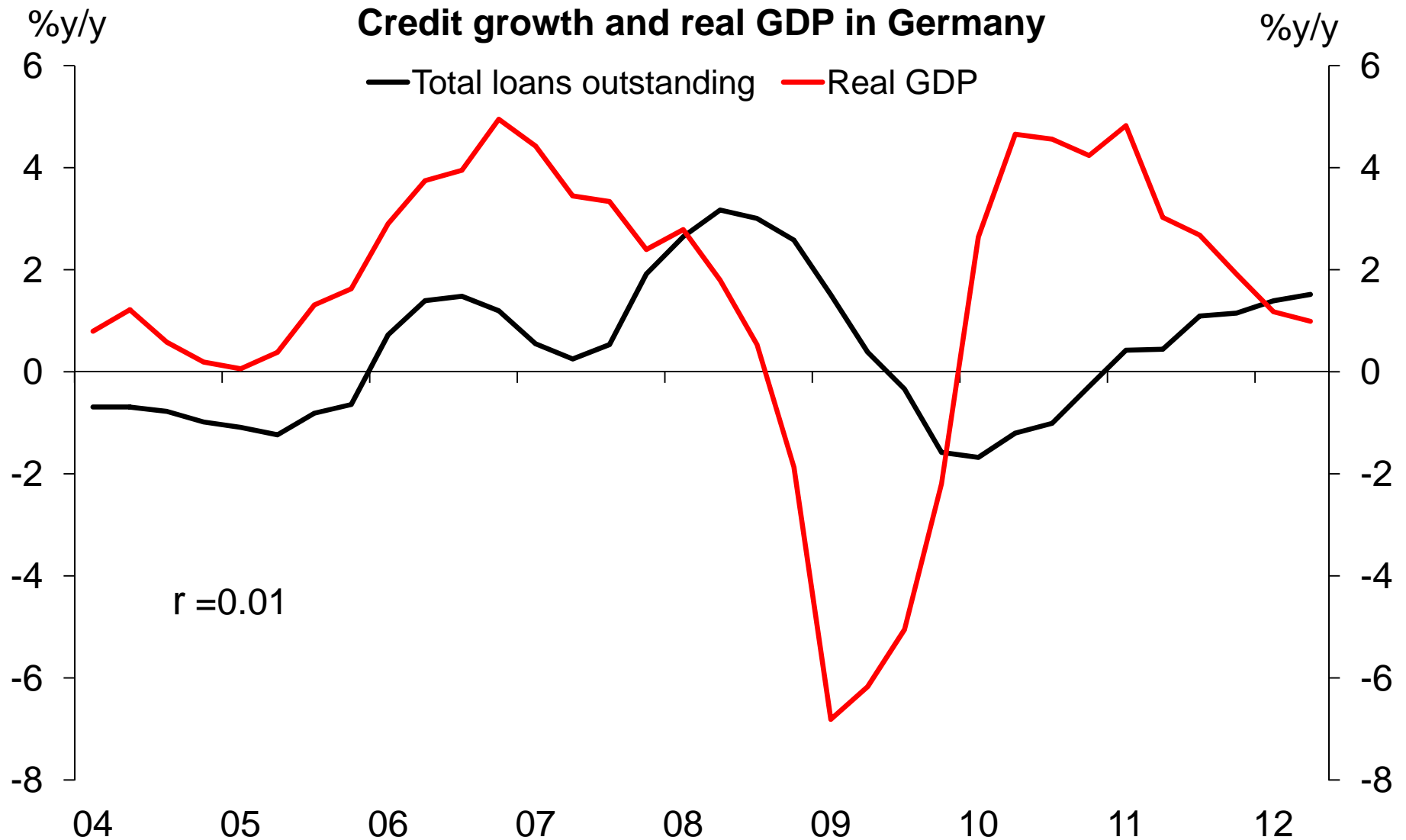
Source European Banking Federation (Nov 2011), DB Global Markets Research

Exports are a key driver of growth in Germany



Source- StBA, Bbk, Haver Analytics, DB Global Markets Research

Common misunderstanding that debt/credit growth is needed in order to have GDP growth



Source- StBA, Bbk, Haver Analytics, DB Global Markets Research



Conclusion

The relationship between government debt and GDP growth: It's complicated.

In particular for the US, which is a reserve currency. Key question for investors: Is the US ever going to lose its reserve currency status?



Torsten Slok, Ph.D.

**Chief International Economist, Managing Director
Deutsche Bank Securities, Inc.**

- Torsten Slok joined Deutsche Bank Securities in the fall of 2005.
- Mr. Slok's Economics team was ranked No. 1 in fixed income research by Institutional Investor in 2010 and 2011 and No. 2 in 2012. Slok currently serves as a member of the Economic Club of New York
- Prior to joining the firm, Mr. Slok worked at the OECD in Paris in the Money and Finance Division and the Structural Policy Analysis Division. Before joining the OECD he worked for four years at the IMF in the Division responsible for writing the World Economic Outlook and the Division responsible for China, Hong Kong, and Mongolia.
- Mr. Slok studied at University of Copenhagen and Princeton University. He has published numerous journal articles and reviews on economics and policy analysis, including in Journal of International Economics, Journal of International Money and Finance, and The Econometric Journal.



Appendix 1

Important Disclosures
Additional Information Available upon Request

For disclosures pertaining to recommendations or estimates made on a security mentioned in this report, please see the most recently published company report or visit our global disclosure look-up page on our website at <http://gm.db.com/ger/disclosure/DisclosureDirectory.eqsr>.

Analyst Certification

The views expressed in this report accurately reflect the personal views of the undersigned lead analyst(s). In addition, the undersigned lead analyst(s) has not and will not receive any compensation for providing a specific recommendation or view in this report. Torsten Slok



Regulatory Disclosures

1. Important Additional Conflict Disclosures

Aside from within this report, important conflict disclosures can also be found at <https://gm.db.com/equities> under the “Disclosures Lookup” and “Legal” tabs. Investors are strongly encouraged to review this information before investing.

2. Short-Term Trade Ideas

Deutsche Bank equity research analysts sometimes have shorter-term trade ideas (known as SOLAR ideas) that are consistent or inconsistent with Deutsche Bank’s existing longer term ratings. These trade ideas can be found at the SOLAR link at <http://gm.db.com>.



3. Country-Specific Disclosures

Australia and New Zealand: This research, and any access to it, is intended only for "wholesale clients" within the meaning of the Australian Corporations Act and New Zealand Financial Advisors Act respectively.

Brazil: The views expressed above accurately reflect personal views of the authors about the subject company(ies) and its(their) securities, including in relation to Deutsche Bank. The compensation of the equity research analyst(s) is indirectly affected by revenues deriving from the business and financial transactions of Deutsche Bank. In cases where at least one Brazil based analyst (identified by a phone number starting with +55 country code) has taken part in the preparation of this research report, the Brazil based analyst whose name appears first assumes primary responsibility for its content from a Brazilian regulatory perspective and for its compliance with CVM Instruction # 483.

EU countries: Disclosures relating to our obligations under MiFiD can be found at <http://www.globalmarkets.db.com/riskdisclosures>.

Japan: Disclosures under the Financial Instruments and Exchange Law: Company name - Deutsche Securities Inc. Registration number - Registered as a financial instruments dealer by the Head of the Kanto Local Finance Bureau (Kinsho) No. 117. Member of associations: JSDA, Type II Financial Instruments Firms Association, The Financial Futures Association of Japan, Japan Investment Advisers Association. This report is not meant to solicit the purchase of specific financial instruments or related services. We may charge commissions and fees for certain categories of investment advice, products and services. Recommended investment strategies, products and services carry the risk of losses to principal and other losses as a result of changes in market and/or economic trends, and/or fluctuations in market value. Before deciding on the purchase of financial products and/or services, customers should carefully read the relevant disclosures, prospectuses and other documentation. "Moody's", "Standard & Poor's", and "Fitch" mentioned in this report are not registered credit rating agencies in Japan unless "Japan" or "Nippon" is specifically designated in the name of the entity.

Malaysia: Deutsche Bank AG and/or its affiliate(s) may maintain positions in the securities referred to herein and may from time to time offer those securities for purchase or may have an interest to purchase such securities. Deutsche Bank may engage in transactions in a manner inconsistent with the views discussed herein.

Russia: This information, interpretation and opinions submitted herein are not in the context of, and do not constitute, any appraisal or evaluation activity requiring a license in the Russian Federation.



Risks to Fixed Income Positions

Macroeconomic fluctuations often account for most of the risks associated with exposures to instruments that promise to pay fixed or variable interest rates. For an investor that is long fixed rate instruments (thus receiving these cash flows), increases in interest rates naturally lift the discount factors applied to the expected cash flows and thus cause a loss. The longer the maturity of a certain cash flow and the higher the move in the discount factor, the higher will be the loss. Upside surprises in inflation, fiscal funding needs, and FX depreciation rates are among the most common adverse macroeconomic shocks to receivers. But counterparty exposure, issuer creditworthiness, client segmentation, regulation (including changes in assets holding limits for different types of investors), changes in tax policies, currency convertibility (which may constrain currency conversion, repatriation of profits and/or the liquidation of positions), and settlement issues related to local clearing houses are also important risk factors to be considered. The sensitivity of fixed income instruments to macroeconomic shocks may be mitigated by indexing the contracted cash flows to inflation, to FX depreciation, or to specified interest rates – these are common in emerging markets. It is important to note that the index fixings may -- by construction -- lag or mis-measure the actual move in the underlying variables they are intended to track. The choice of the proper fixing (or metric) is particularly important in swaps markets, where floating coupon rates (i.e., coupons indexed to a typically short-dated interest rate reference index) are exchanged for fixed coupons. It is also important to acknowledge that funding in a currency that differs from the currency in which the coupons to be received are denominated carries FX risk. Naturally, options on swaps (swaptions) also bear the risks typical to options in addition to the risks related to rates movements.



GLOBAL DISCLAIMER

The information and opinions in this report were prepared by Deutsche Bank AG or one of its affiliates (collectively "Deutsche Bank"). The information herein is believed to be reliable and has been obtained from public sources believed to be reliable. Deutsche Bank makes no representation as to the accuracy or completeness of such information.

Deutsche Bank may engage in securities transactions, on a proprietary basis or otherwise, in a manner inconsistent with the view taken in this research report. In addition, others within Deutsche Bank, including strategists and sales staff, may take a view that is inconsistent with that taken in this research report.

Opinions, estimates and projections in this report constitute the current judgement of the author as of the date of this report. They do not necessarily reflect the opinions of Deutsche Bank and are subject to change without notice. Deutsche Bank has no obligation to update, modify or amend this report or to otherwise notify a recipient thereof in the event that any opinion, forecast or estimate set forth herein, changes or subsequently becomes inaccurate. Prices and availability of financial instruments are subject to change without notice. This report is provided for informational purposes only. It is not an offer or a solicitation of an offer to buy or sell any financial instruments or to participate in any particular trading strategy. Target prices are inherently imprecise and a product of the analyst judgement.

As a result of Deutsche Bank's March 2010 acquisition of BHF-Bank AG, a security may be covered by more than one analyst within the Deutsche Bank group. Each of these analysts may use differing methodologies to value the security; as a result, the recommendations may differ and the price targets and estimates of each may vary widely.

In August 2009, Deutsche Bank instituted a new policy whereby analysts may choose not to set or maintain a target price of certain issuers under coverage with a Hold rating. In particular, this will typically occur for "Hold" rated stocks having a market cap smaller than most other companies in its sector or region. We believe that such policy will allow us to make best use of our resources. Please visit our website at <http://gm.db.com> to determine the target price of any stock.

The financial instruments discussed in this report may not be suitable for all investors and investors must make their own informed investment decisions. Stock transactions can lead to losses as a result of price fluctuations and other factors. If a financial instrument is denominated in a currency other than an investor's currency, a change in exchange rates may adversely affect the investment. Past performance is not necessarily indicative of future results. Deutsche Bank may with respect to securities covered by this report, sell to or buy from customers on a principal basis, and consider this report in deciding to trade on a proprietary basis.

Unless governing law provides otherwise, all transactions should be executed through the Deutsche Bank entity in the investor's home jurisdiction. In the U.S. this report is approved and/or distributed by Deutsche Bank Securities Inc., a member of the NYSE, the NASD, NFA and SIPC. In Germany this report is approved and/or communicated by Deutsche Bank AG Frankfurt authorized by the BaFin. In the United Kingdom this report is approved and/or communicated by Deutsche Bank AG London, a member of the London Stock Exchange and regulated by the Financial Services Authority for the conduct of investment business in the UK and authorized by the BaFin. This report is distributed in Hong Kong by Deutsche Bank AG, Hong Kong Branch, in Korea by Deutsche Securities Korea Co. This report is distributed in Singapore by Deutsche Bank AG, Singapore Branch, and recipients in Singapore of this report are to contact Deutsche Bank AG, Singapore Branch in respect of any matters arising from, or in connection with, this report. Where this report is issued or promulgated in Singapore to a person who is not an accredited investor, expert investor or institutional investor (as defined in the applicable Singapore laws and regulations), Deutsche Bank AG, Singapore Branch accepts legal responsibility to such person for the contents of this report. In Japan this report is approved and/or distributed by Deutsche Securities Inc. The information contained in this report does not constitute the provision of investment advice. In Australia, retail clients should obtain a copy of a Product Disclosure Statement (PDS) relating to any financial product referred to in this report and consider the PDS before making any decision about whether to acquire the product. Deutsche Bank AG Johannesburg is incorporated in the Federal Republic of Germany (Branch Register Number in South Africa: 1998/003298/10). Additional information relative to securities, other financial products or issuers discussed in this report is available upon request. This report may not be

Copyright © 2012 Deutsche Bank AG