



CAPITALIZING ON CREDIT DISINTERMEDIATION

AN EVOLVING OPPORTUNITY SET FOR INVESTORS

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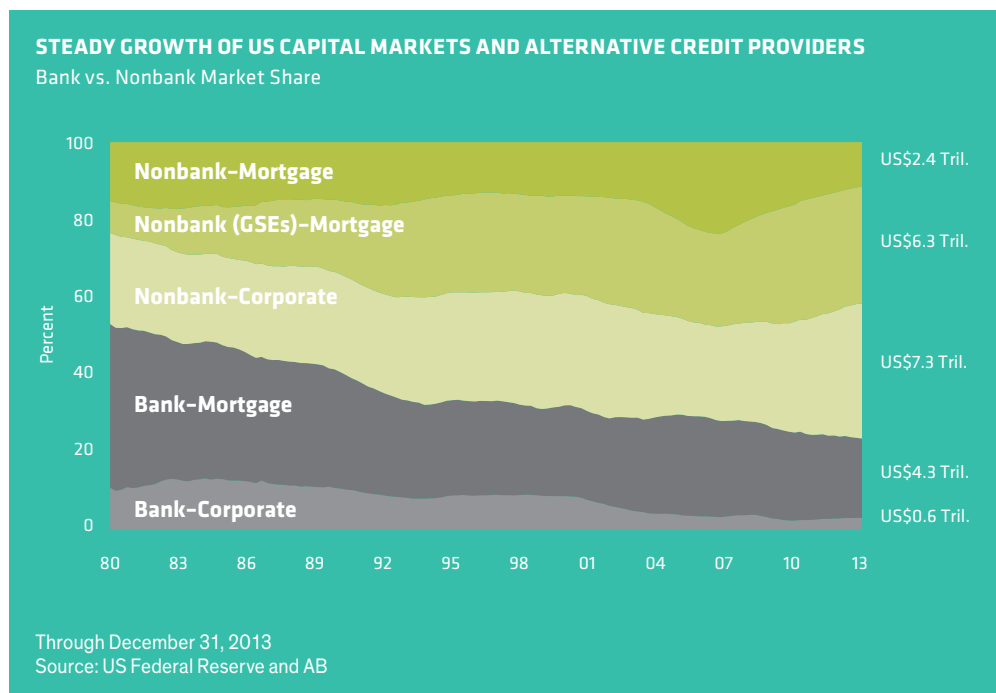
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IN THIS PAPER: History has shown that evolution in the financial markets gives rise to new investment opportunities. In our 2011 paper *Increasing the Role of Private Capital in the Mortgage Market* we described our vision for private capital to replace government capital in financing mortgage credit. This process of disintermediation has been occurring in the US financial sector for some time across end markets. Today, it is taking place around the world and is poised to accelerate, introducing a new set of investment opportunities.

PERSPECTIVES ON A SECULAR TREND

Credit providers play a critical role in supporting economic growth. Banks, capital markets and alternative credit providers (nonbank lenders such as asset managers, insurance companies, pension funds and specialty finance companies) efficiently allocate capital to borrowers. The financial health of individuals and businesses depends on reliable access to financing to manage everything from daily cash-flow needs to larger-scale business expansion. This access in turn fuels employment growth and consumer spending. Through a virtuous cycle, broad access to credit becomes a driver of economic growth.

As global financial markets mature, this process is facilitating a trend of bank disintermediation—with providers of capital moving closer to borrowers. This trend is secular, much like in other consumer-driven industries such as retail, where customers increasingly prefer shopping online to visiting stores. Although this evolution has been firmly under way in the US for many years, it has been accelerating.



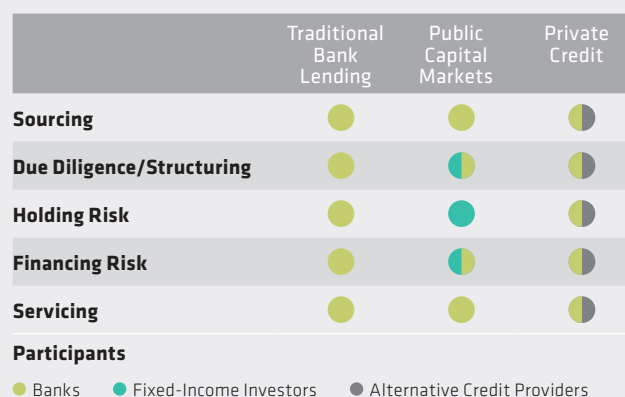
For instance, only three decades ago, banks provided more than 50% of the total credit extended to finance US nonfinancial corporations and real estate (*Display 1*), two sectors that together represent more than 70% of total private sector credit outstanding. This figure has steadily declined, to approximately 23% today, whittled down by the growth of capital markets and alternative credit providers, including government-sponsored entities (GSEs)—Fannie Mae, Freddie Mac and Ginnie Mae. Since 1980, nonfinancial corporate and mortgage credit outstanding has grown by approximately US\$18.9 trillion. Of this growth, US\$3.9 trillion has been attributable to banks and US\$15.0 trillion to nonbanks—US\$6.1 trillion of this has been from GSEs.

Europe's financial system is much more bank-centric than that of the US, with banks currently providing approximately 45% of credit to European nonfinancial corporate borrowers. European banks are larger and their market share is more concentrated than that of their US counterparts. Moreover, differences in law, regulatory regime, language and currency have constrained the development of European capital markets relative to those of the US. This combination of factors has made bank disintermediation slower to take hold in Europe. Still, it is beginning to gain momentum in Europe on the back of postcrisis re-regulation.

We expect bank disintermediation to gain momentum in the years ahead as increasing regulatory burdens, capital requirements and operational costs force banks out of certain lending businesses. The ramifications of Basel III and Dodd-Frank have yet to be fully realized, but many borrowers have already been forced to secure new credit providers in select areas, including commercial real estate and middle market corporate credit, to avoid financing shortfalls. There's also a natural progression toward alternative credit intermediation in other credit-intensive end markets such as residential real estate and infrastructure, whose longer investment horizons are mismatched with bank-liability structures subject to daily liquidity requirements.

As a result, we expect the role of banks to continue to diminish in importance as alternative credit providers continue to move closer to end borrowers. This will unfold in different ways and to varying degrees depending on the market segment and region (*Display 1*). In

DISPLAY 1: EVOLVING ROLES OF PARTICIPANTS IN CREDIT INTERMEDIATION CHANNELS



Source: AB

some instances, banks may shift their focus from sourcing, evaluating, holding, financing and servicing credit to facilitating transactions. In other areas, banks may partner with alternative credit providers to provide financing, or may exit the financing process altogether.

KEY INVESTMENT IMPLICATIONS

We believe that bank disintermediation will have specific ramifications for credit investors:

- + At its core, the move to broader financing sources may fundamentally alter the best way to approach fixed-income asset allocation.
- + Disintermediation is already fueling long-term credit investment potential in four key market segments: middle market corporate, commercial real estate, residential real estate and infrastructure. It's also generating collateralized specialty financing opportunities across regions and market segments.
- + As the marketplace evolves, it's introducing opportunities for alternative credit providers to deliver capital to address shorter-term dislocations and supply/demand imbalances.

Today, we are witnessing the most recent phase of a longer-term secular trend in the financial markets.

These developments may seem to signify notable changes, but they actually represent natural outcomes of a continued evolution that should benefit debt capital consumers and providers as well as the economy as a whole.

BANK DISINTERMEDIATION: A HISTORICAL CONTEXT

The progression from a bank-centric financing model to a capital markets-based model and, more recently, to an alternative credit provider-based financing model, has been happening for many years. Indeed, there's a long history of disintermediation being brought about by changes in legislation, regulation and public policy.

A notable first step in this progression took place in the latter part of the 19th century: the substantial capital investment required to build out the US rail and utility infrastructure was financed primarily by bond issuance to private investors. By the end of the century, the corporate bond market had meaningfully expanded, reflecting the technological and industrial developments that had been taking place across the country.

This trend continued in the US throughout the 20th century. In 1968, Ginnie Mae issued its first guarantee of a mortgage pass-through security, creating the US mortgage securitization market. In 1971, Freddie Mac packaged the first mortgage pass-through security composed primarily of private mortgages. In the same year, the first money-market fund was introduced, which began the disintermediation of the short-term corporate funding market. These developments were revolutionary at the time. Today, however, they're essential to the daily functioning of the US economy: agency mortgage-backed securities and money-market funds account for more than US\$7.0 trillion and US\$2.5 trillion of investor assets, respectively.

The US corporate bond market grew from less than US\$500 billion in 1980 to more than US\$6.0 trillion currently, replacing banks as the predominant source of financing for US companies. From the 1990s until the financial crisis unfolded, securitization techniques previously developed in the residential mortgage market began to be applied more broadly—we witnessed the growth of the asset-backed security

(ABS), non-agency residential mortgage-backed security (RMBS), commercial mortgage-backed security (CMBS) and collateralized loan obligation (CLO) markets.

During this same period, we also saw an increase in direct lending provided by alternative credit providers. These included real estate investment trusts (REITs), business development companies (BDCs)—SEC-registered companies that facilitate the growth of small and midsize companies—and other specialty finance companies.

Since the financial crisis, we've observed an increase in direct lending by alternative credit providers around the globe, as regulations have reshaped traditional landscapes. For instance, banks have been exiting certain lending businesses altogether and seeking partners to syndicate risk positions, while maintaining smaller holds in originated assets themselves. We've also seen the emergence of peer-to-peer lending as an alternative path to funding for some borrowers. Ultimately, this trend is transferring the benefit of the coupon paid by the underlying borrower to savers from equity investors in levered financial institutions.

In short, we're observing a continuation of a longer-term secular trend in the financial markets today. Based on the funding voids created by post-crisis re-regulation and steadily returning borrower appetite for new financings (prompted by continued economic recovery and pent-up demand), the current environment and outlook for alternative credit providers remains incredibly attractive, in our view.

THE OPPORTUNITY

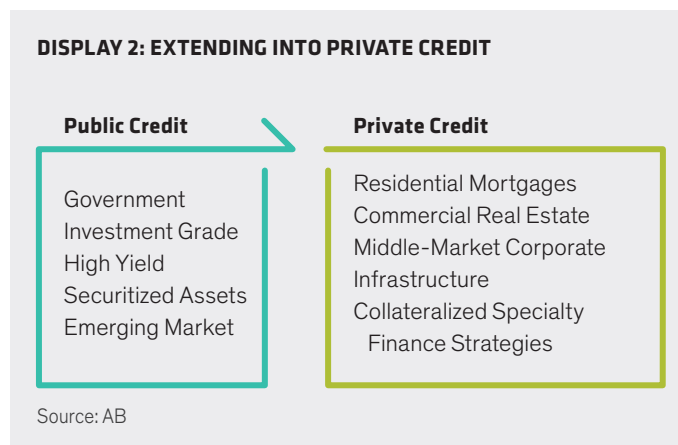
We believe that the increasing role of alternative credit providers should create a new set of investment opportunities, just as the earlier disintermediation of banks by capital markets created new asset classes. One of the most significant developments may be that fixed-income assets currently viewed as opportunistic will increasingly come to be seen as core portfolio components. Direct-lending strategies should continue to become even more attractive in terms of long-term, risk-adjusted return potential relative to traditional fixed income. Our assessment is based on several key characteristics of these assets:

- + **Defensive against rising interest rates:** For more than two decades, most traditional fixed-income asset classes have exhibited strong returns amid declining interest rates. But at this point in the cycle, these assets are exposed to the sizable downside risk posed by an eventual increase in rates. In contrast, many of the newly emerging private-credit market segments provide natural hedging characteristics—such as floating rates—in rising-rate environments.
- + **Underlying illiquidity premiums:** Most of these investments require intermediate- and long-term funding, so they offer higher return potential and yield pickup to compensate investors for giving up ready access to liquidity. This benefit could be an especially compelling proposition for investors with longer-dated liability structures, such as pension funds and insurance companies.

Furthermore, these direct-lending opportunities might be even more compelling when considered against the backdrop of a liquidity landscape that has been redrawn since the global financial crisis—when the promise of liquidity proved illusory beyond the highest-quality securities, such as US Treasuries and German Bunds, which remained liquid. Postcrisis, banks have been providing far less secondary market liquidity.

For example, according to a Federal Reserve Bank of New York data set that was discontinued at the end of March 2013, US primary-dealer inventories of corporate debt had fallen by about 75% since mid-2007 (from US\$223 billion to US\$58 billion), and the corporate-bond market had grown 62% over the same time period (from US\$3.6 trillion to US\$5.8 trillion). As investors increasingly acknowledge the fleeting nature of liquidity, they may view less liquid credit opportunities through a different lens.

- + **Attractive relative risk profiles:** Many directly originated credit opportunities have experienced lower default rates and higher recovery rates than other public-credit asset classes. In our opinion, this is in large part because alternative credit providers who are directly sourcing opportunities are better able to conduct in-depth research and due diligence, negotiate strong covenants



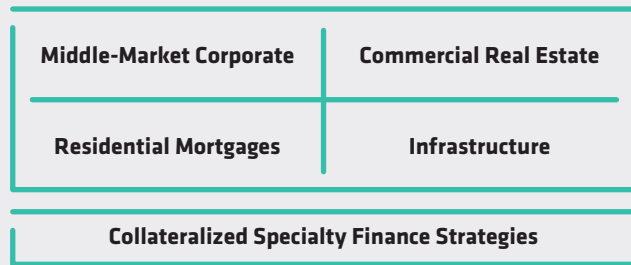
in loan documents, and proactively monitor borrowers throughout the life of the loan—giving them the ability to constructively work through challenges. Moreover, in many cases, these investments are in a secured or collateralized position in the capital structure, resulting in more attractive downside protection.

- + **Diversification benefits:** Given their exposure to different sectors, types of borrowers and regional trends, we'd expect directly originated private-credit opportunities to provide diversification to a portfolio of traditional fixed-income and equity assets. For example, the yield component of the performance for a subset of these opportunities—most notably, infrastructure debt—would be tied to local inflation and local economies.

We believe that bank disintermediation will lead to a convergence between traditional fixed-income and alternative investments, especially with respect to directly originated private credit. These opportunities will lead investors to expand their fixed-income asset-allocation framework. Historically, investors' allocations to traditional, more liquid fixed income included US government bonds, US credit (investment grade and below investment grade), securitized assets, municipal bonds, non-US bonds and emerging-market debt.

The line between traditional fixed income and alternatives investing is blurring, resulting in a broader allocation framework for investors.

DISPLAY 3: CAPITALIZING ON CREDIT DISINTERMEDIATION: OPPORTUNITIES



Source: AB

The broader allocation framework that we see emerging (*Display 2*) will include direct-lending strategies in large end markets—such as commercial and residential real estate, middle-market corporate and infrastructure—as well as collateralized specialty finance strategies spanning various end markets. This will result in a less liquid investment profile, but one with higher risk-adjusted return potential and more diversification relative to traditional fixed income.

In the following sections, we offer a deeper discussion of our views on five broad investment opportunities (*Display 3*)—four focused on specific market segments and one that spans multiple segments:

- + Middle-market corporate—direct lending
- + Commercial real estate—direct lending
- + Residential mortgages—credit risk-sharing transactions
- + Infrastructure—direct lending
- + Collateralized specialty finance—direct lending and financing across various market segments and geographic regions

INVESTMENT OPPORTUNITIES

MIDDLE-MARKET CORPORATE

Approximately 90% of corporate lending in the US is intermediated by capital markets and alternative credit providers. This relationship also holds true for the middle market, traditionally defined as companies with less than US\$50 million in earnings before interest, taxes, depreciation and amortization (EBITDA). This category includes more than 200,000 businesses and represents approximately one-third of private sector gross domestic product.

Notwithstanding the growth in capital-markets intermediation, access has been mainly available to larger companies, leaving the middle market more reliant on alternative credit providers. Smaller and regional banks that traditionally provided credit to these companies have scaled back their market presence.

This shift began in the 1990s and accelerated in the 2000s with the growth of nonbank financing vehicles and lenders such as CLOs, commercial finance companies, private debt funds and BDCs.

Since the financial crisis, the supply/demand dynamics associated with middle-market lending have evolved further, with hedge funds and bank proprietary trading desks exiting the business in order to focus on core competencies. And regulatory headwinds for banks (e.g., Basel III, supervisory guidance on leveraged lending) have increased these institutions' relative preference for larger transactions over middle-market loans.

TREND

Middle-market companies are being forced to find alternative credit sources as regulatory factors make middle-market lending less attractive for traditional providers, such as CLOs and banks.

Areas to Watch

Middle-market companies generally, core and lower middle-market companies in particular

In Europe, corporate capital markets aren't as wide or deep, and banks remain the most viable sources of funds for middle- and small-market companies. This is beginning to change in countries such as the UK, Germany and France, however, due to more established regulatory frameworks. So, there has been an emergence of alternative credit providers, with bank disintermediation driven by cost pressures associated with re-regulation requirements.

While the entire middle market remains compelling, we believe that the core and lower middle market segments (companies with EBITDA up to roughly US\$30 million) currently offer higher risk-adjusted return potential than the upper middle market. In particular, the lower middle market, generally companies with US\$5 million to US\$15 million in EBITDA, is the most underpenetrated and inefficient with respect to capital access—offering the greatest growth potential, in our view.

Loans to middle market corporates typically provide greater yield spreads and attractive risk-adjusted return attributes compared with large-cap liquid credit. They're generally less exposed to mark-to-market risk, with historically minimal correlation to public markets, since they're usually buy-and-hold investments.

Their nature can provide investors with more attractive terms, structures and covenants as well as deeper research insights from more detailed due diligence, as compared with the prospectus disclosure offered by most traditional corporate-credit securities. Investors also usually benefit from greater control and proactive risk management in cases of loan difficulties.

COMMERCIAL REAL ESTATE

Bank activity in commercial real estate financing has sharply declined globally in the wake of the financial crisis. Despite recent signs that financial institutions may be growing slightly more comfortable with balance-sheet risk exposure, the longer-term trend has been a shift in market share from banks to alternative credit providers—most notably asset managers and commercial mortgage REITs. These alternative credit providers, with their dedicated analytical capabilities and deep understanding of commercial real estate

markets, have scalable platforms that are well equipped to assess and manage the risks of financing credit-intensive investments through economic cycles.

Fundamentals indicate early-stage, but uneven, improvements in the US commercial real estate market. Banks, insurance companies and CMBS lenders have returned to the market primarily by targeting stabilized properties. Despite increased liquidity, lending volumes are still well below peak levels. For instance, CMBS issuance in 2013 was approximately US\$79 billion—close to 2003 levels and 65% below the peak issuance of US\$224 billion in 2007. This focus has left commercial real estate loans secured by assets in transition, or “transitional loans,” underserved, creating a pocket of opportunity for investors. Transitional loans are typically characterized by some combination of overleveraged capital structures, below-market rents, deferred maintenance of capital improvement requirements and/or a business plan centered on asset repositioning.

TREND

Asset managers and commercial mortgage REITs are filling the funding gap created by banks' reduced involvement with commercial real estate financing. Reduced competition from traditional lenders and capital markets further supports the potential for attractive risk-adjusted returns for investors with the ability to assess credit risk.

Areas to Watch

Transitional properties

There are several characteristics that we believe make transitional loans particularly attractive at this stage in the commercial real estate market recovery. First, the asset quality of the properties that collateralize these loans tends to be institutional, making them prime investment products for core real estate investors—once the properties stabilize. Further, while the prices of stabilized core properties have largely recovered to peak levels, the valuations on which transitional loans are sized are more reasonable relative to

The post-crisis direct lending activity of alternative credit providers is creating a new set of investment opportunities.

historic benchmarks. Finally, transitional loans are predicated on an investment strategy of re-leasing, capital improvement or asset repurposing, and they include either loan reserves or holdbacks to address this strategy. Because of this, the risks of transitional loans are overstated early in a recovery.

RESIDENTIAL MORTGAGES

US GSEs such as Fannie Mae and Freddie Mac have funded between 80% and 90% of the US mortgage market since the financial crisis, compared with approximately 50% to 60% before the crisis. This near monopoly isn't sustainable—nor is it likely to continue as increasingly tight GSE underwriting standards risk placing home funding out of reach for many people.

For example, the average credit score required to obtain a mortgage in 2007 was 733. This measure of borrower creditworthiness has climbed to 760. While other underwriting guidelines such as loan-to-value and borrower debt-to-income ratios have also tightened, the 27-point increase in credit score, and a corresponding shift in the distribution of eligible borrowers, has effectively left 15% to 20% of the US population unable to qualify for a Fannie Mae or Freddie Mac mortgage. (Please note that we're not referring here to Ginnie Mae, which is also a GSE.)

Banks haven't stepped up to fill this lending gap, and they're unlikely to do so because of increased regulations, cost pressures and legacy issues around default and liability risks. This appears to make alternative credit providers the most viable funding source, with mortgage financing increasingly coming from specialized, smaller mortgage originators and asset managers through risk-sharing transactions.

GSE risk-sharing transactions will be an important vehicle through which private capital will be provided to the mortgage market. Historically, Fannie Mae and Freddie Mac have retained all the risk of borrowers defaulting. The only risks passed on to investors were interest-rate risk and prepayment risk. This arrangement has been changed through risk-sharing transactions: GSEs are hedging borrower default risk by selling newly created bonds directly linked to the level of borrower defaults.

These transactions have been very successful so far, and have changed the conversation around GSE reform. Even though they haven't completely disintermediated Fannie Mae and Freddie Mac, they've created a mechanism that puts capital markets in the driver's seat in determining how mortgage credit risk should be priced. Risk sharing will be an integral part of the new mortgage landscape in the US in the coming years, regardless of the exact structure of GSE reform. We believe that the structure of risk-sharing transactions is also applicable in the private sector, as a way to facilitate risk transfer from capital constrained lenders.

TREND

Growth in the number of potential borrowers who no longer meet strict GSE underwriting guidelines and subdued capital-markets activity are creating a direct-lending opportunity for alternative credit providers, such as residential mortgage REITs and asset managers.

Areas to Watch

Risk-sharing transactions (GSE and private sector)

INFRASTRUCTURE

The market for infrastructure equity—typically 20% to 40% of the capital structure—is well developed as an asset class. In contrast, infrastructure debt—typically 60% to 80% of the capital structure—is less developed, since it was primarily serviced by banks. A supply/demand imbalance in Europe has resulted in a sizable infrastructure investment gap, creating an opportunity for alternative credit providers.

Private infrastructure investing in Europe is an area of strong potential growth. In Europe, many banks and other alternative credit providers offered a supply of credit to the market before the financial crisis, matching increasing demand for funding with a healthy supply. Since the crisis, demand for infrastructure credit has continued to grow—especially credit has continued to grow—especially credit for the modernization of existing infrastructure and new projects—but the supply of funding has fallen off.

Government supply of infrastructure funding has been declining as fiscal measures, budgetary cuts and austerity programs have continued in the wake of the crisis. Governments are under increasing pressure to monetize their infrastructure assets through privatization and divestment programs. Also, European Union regulation, as well as Competition Commission rulings on infrastructure asset ownership, has resulted in more infrastructure divestment programs from large European corporates, particularly relating to unbundling in the power and energy sectors.

Compounding these financial constraints, banks have become much less viable sources of funding supply due to increased regulations, markedly decreased risk appetites, tighter lending standards, higher costs and general balance-sheet and regional retrenchment. With growing demand for infrastructure credit in Europe and shrinking supply from governments and banks, alternative credit providers can step into the gap. Insurance companies and pension plans, in particular, have been attracted to the asset class because of their liability-driven investment needs.

In addition to relatively long-dated maturities, infrastructure debt investments offer stable cash-flow generation—thanks to the low volatility of the underlying assets' revenue streams. These investments have also exhibited low default and high recovery rates relative to corporate bonds throughout the economic cycle. Finally, they are backed by real physical assets, so they're often naturally linked to inflation.

In our view, “brownfield investments”—established projects with proven track records—are especially appealing from a risk-adjusted return perspective, as opposed to “greenfield” investments, which

TREND

Constrained government and bank infrastructure funding in the UK and Europe has created a sizable supply/demand imbalance, offering an opportunity for alternative credit providers.

Areas to Watch

Brownfield investments in the UK and Europe

are untested projects that are exposed to construction, cost-overrun and delay risks. Brownfield credits are often very stable, long-duration assets, offering steady, attractive yields and low correlation to public equity and debt markets. They may help expand portfolio diversification and facilitate liability matching.

COLLATERALIZED SPECIALTY FINANCE

In addition to the market segments we've discussed, there are other areas where traditional lenders are no longer able or willing to extend credit—for both balance-sheet and regulatory reasons. These include unsecured consumer loans, auto loans and secured small-balance commercial loans (such as leasing, equipment and other asset-based working-capital loans).

TREND

Continued regulatory and capital pressures are leading to attractive asset-based investment opportunities.

Areas to Watch

Consumer and small-balance commercial finance globally and select distressed opportunities

The current, limited ability of banks to warehouse and securitize many forms of consumer and small-balance commercial assets has repriced much of the lending and investment in and around these assets so that they offer much higher return levels; in the process, inefficiencies have emerged. In many cases, these market segments are associated with asset-based lending opportunities backed by collateral that's self-amortizing, with liquidating structures that don't require market “takeouts” in order to realize gains.

In the US, the consumer and small-balance commercial markets have become more fractionalized, enabling alternative credit providers to achieve returns in proportion to the underlying risks in these assets—the peer-to-peer lending space is a prime example of this. In certain European markets, large volumes of distressed commercial real estate available for sale have allowed private pools of capital to finance quality assets at very attractive levels. In Latin America,

the traditional principal risk-taking activities of investment and commercial banks have all but stopped, given the much larger capital requirements of the direct-lending and distressed-asset spaces.

IMPLICATIONS FOR STAKEHOLDERS

We believe that the latest phase in the evolution of bank disintermediation will broaden the available sources of funding for many borrowers, while at the same time providing opportunities for both lenders and investors—just as earlier phases have. While we're optimistic about the overall impact of bank disintermediation, there are risks worth noting.

Implications for Borrowers: While the financing solutions we've described are more flexible and customizable than those provided by traditional lenders, the cost associated with this type of credit may increase while supply and demand rebalance.

Implications for Lenders: The current environment presents a compelling set of opportunities for alternative credit providers who are willing and able to successfully fill the financing voids left by banks. Having the capability to partner with banks, asset servicers and other capital providers, such as hedge funds or private equity platforms, opens up even more opportunities for alternative credit providers.

In our view, the most successful lenders will be differentiated by many of the same attributes previously exhibited by traditional banks. These include having broad investment platforms to support the sourcing of new investment opportunities (akin to the reach of banks' branch networks) with strong investment track records (similar to traditional bank underwriting capabilities), a diverse client base and asset pool, and distribution reach.

Asset managers are well suited to play this role in many respects, but they'll likely need to build out credit-risk-management and asset-

servicing functions, giving thoughtful consideration to the associated costs. Having experience across business cycles, market segments and geographies would also be an important differentiator.

Implications for Investors: As borrowers and providers of capital move closer together, investors will gain direct exposure to a set of asset classes previously available mainly to banks. These credit investment opportunities often provide higher yields because the investor benefits more directly from the coupon generated by the underlying asset. The opportunities also reduce mark-to-market portfolio volatility and can help manage liability cash flows.

Implications for the Economy: A broader financing base may help reduce both idiosyncratic and systemic risk through better diversification and distribution of assets. It may also lower overall system leverage by allowing unlevered end investors to directly benefit from cash flows generated by a broader range of assets. However, regulatory gaps remain a concern.

CONCLUSION

As global financial markets mature and evolve, we expect the secular trend of bank disintermediation to continue, with far-reaching implications for borrowers, lenders, investors and the global economy. While we're constructive on the emerging set of direct-lending opportunities—particularly the role they may play in expanding views on the asset-allocation framework for fixed-income investments—we acknowledge uncertainties and risks. Ultimately, we believe that bank disintermediation will continue to bring borrowers and providers of capital closer together, with the effect of blurring the lines between traditional fixed-income and alternative investments.

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